GENERAL LIBRARY
UNIV. OF MICH.
FEB 5 1930

VOL. VIII, NO. 1 JANUARY, 1930

Research Bulletin

OF THE

National Education Association

THE QUESTIONNAIRE

Have you dispatched a carefully prepared questionnaire, asking for significant data?

Has this questionnaire gone to a group of persons who ordinarily treat you with courtesy and respect?

Has your questionnaire been thrown into the waste basket with the others—good, bad, and indifferent—which roam the country unrestrained?

Or

Have you neglected pressing duties, and burned midnight oil while you answered questionnaires?

Have you anathematized questionnaire-makers and all their works?

Have you purchased a large waste basket and resolved to answer no more questionnaires, question-blanks, check lists, inquiries, or data sheets?

If you have done any or all of these things—this Bulletin is for you.

PUBLISHED BY THE RESEARCH DIVISION

OF THE NATIONAL EDUCATION ASSOCIATION

1201 SIXTEENTH STREET NORTHWEST, WASHINGTON, D. C.

Entered as second-class matter February 10, 1923, at the Post Office at Washington, D. C., under Act of August 24, 1912. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized February 10, 1923.

Research Bulletin of the National Education Association

Published five times each year in January, March, May, September, and November by the Research Division of the National Education Association of the United States.
President, E. RUTH PYRTLE *Secretary*, J. W. CRABTREE

The payment of the $5 membership fee of the National Education Association entitles one to receive the Research Bulletin, the Journal, the Annual Volume of Addresses and Proceedings, and certain other publications of the National Education Association for one year. One dollar of each $5 membership fee is for a year's subscription to the Research Bulletin. The Research Bulletin may be subscribed for separately at a subscription price of $1 per year. Copies may be purchased for 25 cents, and in quantities at a reduced rate. Those entitled to receive the Research Bulletin regularly are asked to report at once any change of address, giving old as well as new address.

Entered as second-class matter February 10, 1923, at the Post Office at Washington, D. C., under Act of August 24, 1912. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized February 10, 1923.

Director of Research: John K. Norton Associate Director: Margaret Alltucker Norton
Assistant Directors: Frank W. Hubbard, William G. Carr
Executive and Editorial Offices - - - 1201 Sixteenth Street N. W., Washington, D. C.

How to Secure Additional Copies

Additional copies of this issue of the Research Bulletin may be obtained at the following prices, postpaid if remittance accompanies order:

Single copies of this issue 25¢
2 to 9 copies—10% reduction
10 to 99 copies—25% reduction
100 or more copies—33 1/3% reduction.

Orders for Research Bulletins not accompanied by remittance are subject to transportation charges. Make checks payable to National Education Association.

Subscriptions to Research Bulletins

The Research Bulletin may be received regularly through a special subscription at $1 per year. Only those holding the $5 membership (see statement at top of this page) receive the Research Bulletin without such subscription. Many of the early issues of the Research Bulletin are already out of print. The special subscription at $1 per year offers an opportunity to maintain a complete file of future Research Bulletins.

Reproduction of Material in Research Bulletins

Electro-mat-slide service: The National Education Association maintains a special service to aid those reproducing material appearing in its publications. Send orders or requests for further information to the Division of Publications.

Tables, charts, and any other material appearing in Research Bulletins may be reproduced for the advancement of education. No authority other than this notice is needed previous to such reproduction. For further information on this subject or others affecting the work of the Division, address the Research Division, National Education Association, 1201 Sixteenth Street N. W., Washington, D. C.

CONTENTS

	Page
Foreword	4
Introduction	5
Questionnaires—To Be or Not To Be	9
The Case Against the Questionnaire	9
The Case For the Questionnaire	11
Better Preparation of Questionnaires	14
Preliminary Considerations	14
Preparing and Sending the Questionnaire	18
Reporting Questionnaire Results	25
The Questionnaire Problem From the Viewpoint of the Superintendent of Schools	28
Evidence Is Assembled	28
The Evidence and What It Shows	28
A Proposed Plan For the Cooperative Regulation of Questionnaires	38
Some Sources of Information	44
References on the Use of Questionnaires in Educational Research	47
Forms Used in Collecting Data	49

LIST OF TABLES

Number of Questionnaires Reported By Cooperating School Systems (Table 1)	29
Who Sends Questionnaires to the Offices of Superintendents of Schools (Table 2)	30
The Fields of Education In Which Questionnaires Seek Information (Table 3)	31
Month of Issuance of Questionnaires Sent to Offices of Superintendents of Schools (Table 4)	31
Distribution of 267 Questionnaires Circulated in 1927-28 According to Number of Items of Information Requested (Table 5)	32
Number of Duplicating Questions in 267 Questionnaires Asking a Total of 13,070 Questions (Table 6)	33
Percent of Reply Received by Various Classes of Questionnaire Circulators (Table 7)	34
Percent of Reply Received as Related to Month of Issuance of Questionnaires (Table 8)	34
Percent of Reply as Related to Length of Questionnaire (Table 9)	34
Uses Made of 171 Questionnaire Studies Begun During 1927-28 and Completed by March, 1929 (Table 10)	35

LIST OF FIGURES

Questionnaires and Poor Administration (Figure I)	6
Questionnaires and Good Administration (Figure II)	7
Illustration of a Master Tabulation (Figure III)	27
An Informal Rating Plan for Questionnaires (Figure IV)	39

FOREWORD

THREE characteristics distinguish fruitful educational investigation. First, the subject of inquiry is timely. Second, discrimination is exercised as to how it is investigated. Third, results are presented in a form likely to affect practice constructively. This issue of the Bulletin abundantly fulfills each of these criteria.

That the questionnaire is widely used in educational investigation is obvious. That its use has troubled many educators both in schools and colleges is equally clear. That more heat than light has been generated by some discussions of the "questionnaire problem" is testified by references cited in the bibliography. An investigation of the problem is therefore timely.

Discrimination has been used in selecting proper methods of studying this difficult problem. Enough data have been presented, but not too much. Both the sins as well as the virtues of this "wayward, but indispensable" tool of science are laid bare.

Finally, a constructive program is proposed. Those who would "do something" about questionnaires need not hesitate as to what to do if they will carefully study the material made available herein. It offers a plan which is both sound and workable.

One warning is desirable. The entire Bulletin should be read before final conclusions are drawn. Material presented in certain sections reveals the questionnaire at its worst. Facts in other sections bring out the contribution it has made to education. The significance of certain paragraphs will be changed if they are taken from their context. If the central finding were to be stated, it would take some such wording as this:

> **The abuses which have grown out of the circulation of questionnaires can be corrected by voluntary, cooperative regulation. For those who receive questionnaires this involves the inauguration of plans whereby worthy inquiries may be selected from the rest and answered with the least expenditure of energy. For those who send questionnaires, it calls for planning to the ends that no unnecessary nor improperly prepared inquiries may be circulated. It is important that these means of correction be taken. Otherwise one of the methods of investigation which has contributed substantially to educational advance will be cut off at the source.**

This Bulletin is recommended to those who would exert a constructive influence in the regulation of the questionnaire problem. It will be of interest to superintendents of schools and their staffs, college specialists, graduate students of education, and others who directly or indirectly come in contact with questionnaire investigation.

J. W. CRABTREE, *Secretary,*
National Education Association.

Introduction

HORACE MANN in 1847 sent a ten page "Circular" asking certain teachers in Massachusetts a series of questions. It began as follows:

> I desire to obtain the opinion of teachers who are both scientific and practical on a subject of great importance to the cause of popular education.[1]

He little realized that in sending this and subsequent Circulars to "persons whose elevated character, and whose extended personal acquaintance with the subject matter on which they testify, place them above denial, cavil, or suspicion" he was creating a precedent later to be followed by so many as to reach the proportion of a "problem."

The inception of this Bulletin—Recent years have witnessed a rapid growth in the use of the questionnaire as a means of educational investigation. Figures presented in a later section indicate that several hundred different questionnaires are annually circulated among the offices of superintendents of schools in this country, and that some individual school systems receive more than a hundred each year.

The work of answering questionnaires has come to be regarded as an unjustifiable burden by some. Magazine articles anathematizing the questionnaire-makers and all their works have appeared. Some school systems have taken blanket action against answering all such inquiries.

The members of the Department of Superintendence of the National Education Association have repeatedly, as individuals and as an organization, taken notice of the "questionnaire problem." When the original proposal to establish the Educational Research Service was made seven years ago by R. G. Jones,[2] a principal motive was to reduce the number of questionnaires by establishing a "clearing house" which would make many of them unnecessary. Official notice was again taken of this problem in the resolutions of the 1929 meeting of the Department of Superintendence.

Questionnaires have become so unpopular that many who send them avoid the word. Instead they issue "inquiry forms," "check-lists," and "data sheets" accompanied by apologetic notes.

These conditions stimulated the Research Division to study the whole problem. The collection of material bearing upon it began several years ago and an intensive study of some phases of the question has been under way for the last two years.

The purpose of this Bulletin—This issue of the Research Bulletin presents material pertinent to the proper solution of the problem. The aim is to answer these questions:

1. Do questionnaires serve useful purposes, and if so, what are they. (See pages 11-3.)
2. How may questionnaires be better prepared? (See pages 14-24.)
3. How may the number of questionnaires be reduced? (See pages 14-7, and 38-43.)
4. How may the results of questionnaires be made more useful? (See pages 25-7.)
5. What is the size and character of the problem of dealing with questionnaires as it is encountered by superintendents of schools? (See pages 28-37.)
6. What should be the attitude and practice of superintendents of schools in dealing with questionnaires? (See pages 13, 38-43.)
7. How may the various interested agencies cooperate in an intelligent regulation of the questionnaire problem? (See pages 38-43.)

General conclusions—The outcome of investigations of the questionnaire problem which this Bulletin presents may be epitomized in these words:

The practice of circulating questionnaires in the field of education has undoubtedly been abused. The time of busy people is sometimes wasted by time-consuming questionnaires dealing with inconsequential topics, worded so as to lead to worthless replies, and circulated by untrained and inexperienced individuals, lacking in facilities for summarizing and disseminating any worthwhile information which they may obtain.

From these facts, however, one should not draw the conclusion that the questionnaire should be abolished. There are competent in-

---

[1] *Life and Works of Horace Mann.* Lothrop, Lee and Shepherd Co., Boston, Mass., Vol. IV, page 151.

[2] Jones, Robinson G. "A Program for the Coming Year." *Addresses and Proceedings* of the National Education Association, 1923, pages 907 to 909. For information concerning the value and cost of the Educational Research Service address the Department of Superintendence, National Education Association, 1201 16th St. N. W., Washington, D. C.

Figure I

QUESTIONNAIRES and POOR ADMINISTRATION

Is this the way you handle questionnaires ?

Does this happen when you want school facts ?

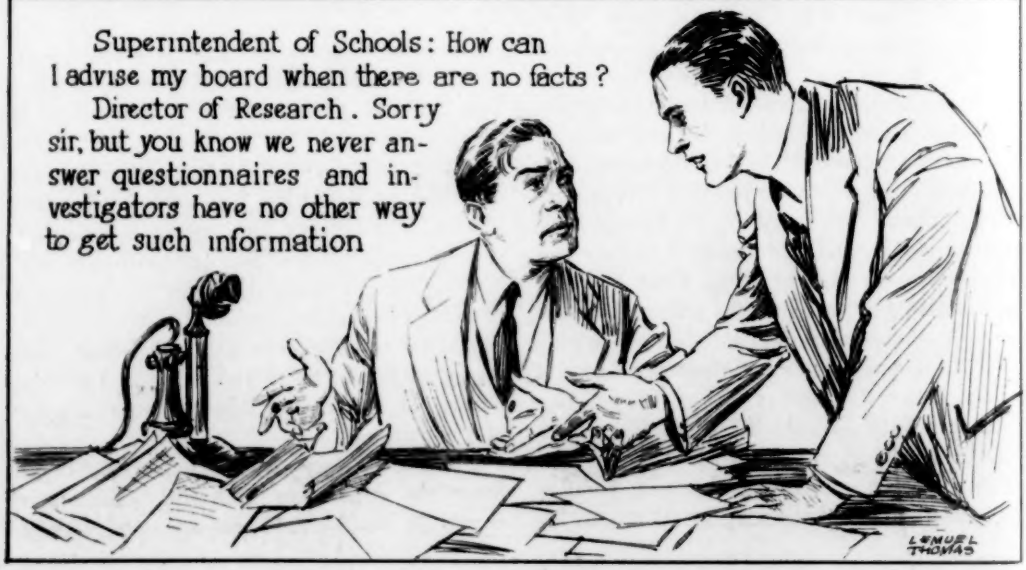
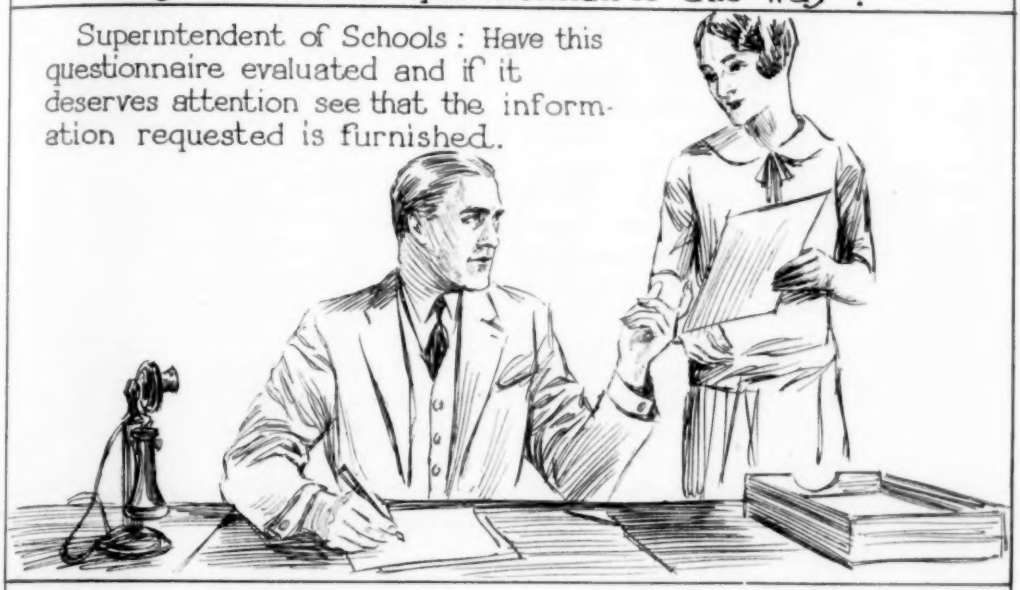

Superintendent of Schools: How can I advise my board when there are no facts ?
Director of Research. Sorry sir, but you know we never answer questionnaires and investigators have no other way to get such information
LEMUEL THOMAS

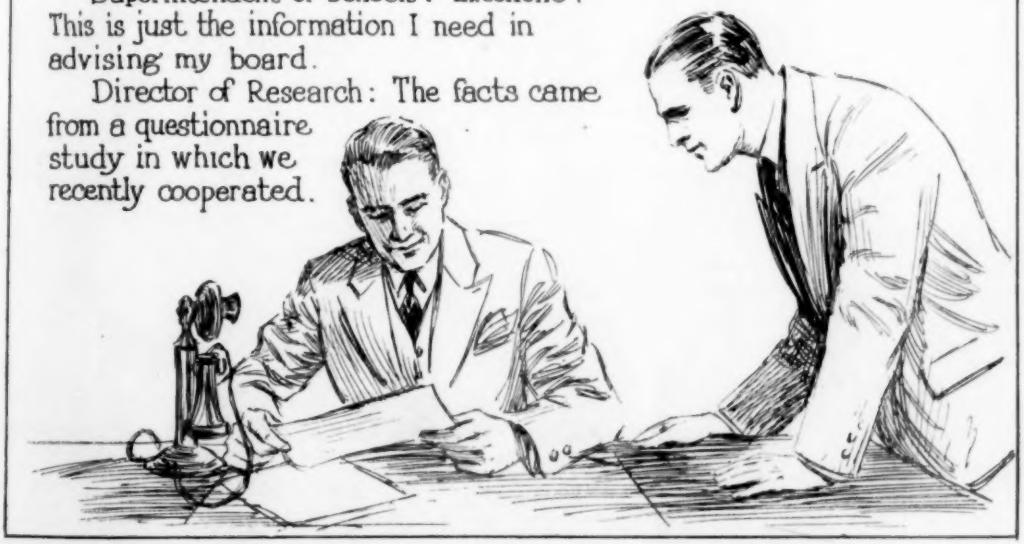
Figure II

QUESTIONNAIRES and GOOD ADMINISTRATION

Do you handle questionnaires this way ?


Superintendent of Schools : Have this questionnaire evaluated and if it deserves attention see that the information requested is furnished.

Is this what happens when you want school facts ?


Superintendent of Schools : Excellent ! This is just the information I need in advising my board.
Director of Research : The facts came from a questionnaire study in which we recently cooperated.

vestigators who issue carefully prepared questionnaires on vital educational questions and make the results generally available in usable form.

A broad and unbiased study of the questionnaire movement as a whole leads to the conclusion that this method of investigation, in spite of its abuse, has yielded far more on the credit than on the debit side of educational advance. Much of the significant knowledge we now have in the field of education has come from the questionnaire in the hands of qualified investigators, and for some time to come it will undoubtedly constitute a legitimate means of educational investigation and research. Superintendents of schools and their staffs, professors of education, and graduate students of education, to name those who most often originate questionnaires, find them indispensable, and they will continue to circulate them. This being the case, what should be the attitude of one who wishes to exercise an enlightened influence on this problem?

If he is one who circulates questionnaires he will examine material presented in, or cited by, this Bulletin [1] which will help him to prepare questionnaires well, which will guard him from sending unnecessary questionnaires, and which will aid him in making the replies to questionnaires most useful to himself and others.

If he is one who receives questionnaires, he will examine the material presented in, or cited by this Bulletin which will aid him in distinguishing between worthy and unworthy questionnaires, and to set up a simple, continuing provision for economically answering those which are worthy.

Finally, whoever he is, school administrator, research worker, or teacher, he will recognize that it is the duty of every one to do what he can to advance educational knowledge, whether his contribution be large or small, direct or indirect. He will strive to make the energy expended in meeting this responsibility count for most. He will not waste the time of others by circulating poorly prepared, unnecessary inquiries, on inconsequential topics, nor will he allow his own time to be wasted by answering such inquiries.

---

[1] When references are not given in complete form in the footnotes, they will be found fully cited in the bibliography on pages 47-9.

Questionnaires—To Be or Not To Be?

There is ample evidence that the questionnaire has fallen into disfavor with many. Some would even go so far as to issue a blanket interdict against this method of investigation. What justification is there for such an attitude? Let us examine the evidence both against and in favor of this method of inquiry.

The Case Against The Questionnaire

These are the objections frequently raised against this method of assembling data:

1. The results of most questionnaires make little if any contribution to educational advance. First-rate educational investigations do not employ this method. Conclusions based on questionnaire blanks are seldom final.

2. The respondents to a questionnaire may not be a random sampling of those addressed. Selection may invalidate the representativeness of data, particularly if the percent of reply is small.

3. Respondents to a questionnaire may consciously or unconsciously modify their replies to give the investigator what he wants.

4. Carelessness in reporting, difficulty of securing information requested, and other factors favor inaccuracy in replies to questionnaires. The degree of this inaccuracy cannot be estimated.

5. The questionnaire method is indefensibly time-consuming particularly for the respondent.

6. Questionnaires are frequently poorly prepared, ask for information already available, and the results are often not properly summarized and distributed.

These objections deserve serious consideration. Are they valid to the degree which justifies the abolition of the questionnaire as a tool of the serious educational investigator? Each will be considered in turn.

Much effort for inconclusive results—There is evidence that some questionnaires contribute little if anything to educational advance. The Research Division made an intensive follow-up of 267 questionnaires on a variety of topics received during 1927-1928 by the offices of certain superintendents of schools.[1] No report of any kind could be obtained as to what happened to 64 of the 267. A considerable percentage of the questionnaires for which reports could be obtained were not tabulated or used in any way. Less than half of them eventuated in either a mimeographed or printed report which could be circulated among respondents. It appears that many questionnaires make little contribution, even to the one circulating them. These facts, however, do not justify the conclusion that no first-rate contributions result from questionnaires. Conclusive evidence to the contrary is presented later.

The objection that questionnaire investigation seldom conclusively answers the question at issue is not a serious one. In modern science no answer to any question is final. Many supposedly final answers to problems in the field of physics, a most exact science, have been revised in the last decade, and the final answers are still being sought.

Selection of replies—The danger that the replies to questionnaires may represent a selected group is a real one. There are undoubtedly situations where this factor invalidates conclusions. This danger is not an insuperable one, however, for these reasons:

a. A well prepared and properly motivated questionnaire, with careful follow-up, may secure such a high percent of reply that the addition of the missing replies could not significantly modify data actually received. For example, 67 of 68 cities over 100,000 in population replied to the extensive salary data blank sent out by the Research Division in 1928-1929. A reply from the missing city could have only slightly affected the general results.

b. Objective appraisals of this factor such as that of Toops, cited in the bibliography on page 49, suggest that the danger of a selected response has been overestimated. Until evidence to the contrary is forthcoming, it seems reasonable to conclude that this factor is probably not decisive in affecting the results of the typical questionnaire, particularly if a reply of more than 50 percent is received. One can never be sure on this point, however, and unless a reply of practically 100 percent is obtained it is well to heed Kelley's words of caution:

> . . . lack of demonstrable fairness in the sample is probably the greatest shortcoming of the ques-

[1] See page 36-7 of this Bulletin.

tionnaire. The user of the questionnaire should never lose sight of it.[1]

Desired answers given—Concerning the objection that respondents tend to give answers desired by the interrogator, there are doubtless situations in which this is a factor of significance, particularly when subjective opinions or attitudes are called for and leading questions are used. It is unlikely that this objection applies to most well-prepared questionnaires for these reasons:

a. The investigator often does not, and properly should not desire responses, other than those which present the truth, and even if he does have his private opinions, they are not known to the respondents.

b. Most questionnaires are largely made up of questions of fact, answerable with yes, or no, or other objective reply, and reduce the number of questions calling for a subjective reply to a minimum. Hence, the probability that answers are modified so as to suit the investigator is remote.

Data fundamentally inaccurate—The objection that the questionnaire inherently encourages careless reporting, and therefore secures inaccurate data, is a serious one. It has also been pointed out that respondents are either unable or unwilling to give accurate answers to certain types of questions calling for personal or confidential data.

These are unanswerable indictments if small differences are significant and extreme nicety in original data is essential. There are many educational questions, however, in which an approximately correct measure of central tendency, or a general indication of trends, is sufficient for the purpose. The sometimes overworked, but none the less valid statistical principle that chance errors tend to neutralize each other, particularly in influencing general averages, also applies here.

An alert investigator will discover means of checking at least portions of his data. For example, rechecks of data secured by the salary inquiry of the National Education Association, made in connection with intensive local salary investigations, indicate these data to be sufficiently exact so that not only the ranks, but the absolute position of individual cities may be designated with reasonable confidence.

Education is still far enough from being an exact science so that data assembled by any method inherently involves a degree of error, often unmeasured, if recognized at all. If the questionnaire is ruled out on this basis practically all other methods of educational investigation deserve a similar fate.

Time-consuming—The objection that questionnaires are indefensibly time-consuming, particularly of the respondent's time, is valid in too large a percent of cases. This, however, is not an inherent objection. An intelligent selection of only worthy questionnaires for attention, and proper organization of such time and facilities as one has to give to them, will discourage the circulation of inquiries which are unnecessarily time-consuming.

Poorly prepared and handled—That unnecessary, poorly prepared questionnaires are circulated by people who lack facilities for summarizing and disseminating results may be concluded from facts presented elsewhere. The investigation upon which this Bulletin is based, however, did not reveal a serious amount of overlapping among questionnaires.[2] It is true that a considerable number on a common subject may be issued each year. An analysis of these inquiries, however, reveals that they frequently deal with different phases of the same general topic, and the amount of overlapping of specific questions is small. It appears that the amount of duplication represented by questionnaire investigations has been over-emphasized.

An appraisal of the objections—A review of the foregoing objections to questionnaires reveals none that justify blanket condemnation of this method of assembling data. Most of them consist of criticisms of the abuse of, rather than the right use of, the questionnaire.

The admitted fact that many questionnaires contribute little or nothing, loses much of its significance when weighed with equally indubitable evidence that some questionnaires contribute a great deal. The situation is not unique. Any form of educational investigation works much ore for a little gold. The lessons from this fact, as it affects questionnaires, should be—start with better ore, and refine it by better methods. Practical means for doing this are suggested subsequently.

[1] Kelley, Truman L. *Scientific Method*, page 81.
[2] See page 33 of this Bulletin.

Other important objections to the questionnaire method—that a selected group of respondents may reply, and that it inherently encourages inaccurate reporting—lose their potency except when applied to poor execution in using this method of investigation. If it appears, because of the character of the information needed and the composition of the groups which can supply it, that a selected reply would be likely to be received, then the questionnaire probably should not be issued. If, however, a questionnaire is issued under such circumstances, follow-ups should be sent out until a sufficient percent of reply is received so that the factor of selection is minimized. Realizing that a degree of inaccuracy may characterize questionnaire replies, the competent investigator will either not use this method when exact data are requisite, or will provide a method of validating results, as Koos [1] suggests.

The difficulties which grow out of the more obvious and flagrant abuses of the questionnaire by untrained and inexperienced people are not insuperable. Inexperienced, even vicious people, sometimes misuse the automobile, but no general outcry is raised against this method of transportation. In this, as in the questionnaire problem, cooperation in regulation is the solution. A careful search of available literature criticizing the use of questionnaires reveals nothing, either in the form of theoretical argument or of objective evidence, which justifies a sweeping condemnation and complete abolition of the questionnaire as a tool of educational investigation.

Let us next consider the case for the questionnaire. The case against this method of inquiry, particularly when confined to its use by competent investigators is not a serious one. But what can be said in favor of the questionnaire?

The Case For The Questionnaire

"By their fruits ye shall know them" has many applications. Has the questionnaire yielded significant fruits in the form of contributions to educational knowledge and practice?

Koo's recent book [2] presents important evidence on this question. His study analyses 581 representative, published researches in the field of education. Of these 581 studies, 143 or nearly one-fourth, depend wholly or principally on questionnaire data. Only two of the 143 were found to have "little or no value." Koos concludes that the question blank has proved to be a source of significant educational data, and that many valuable studies including some of exceptional merit have made use of this method.

Kelley [3] recently approached the matter from a different angle. He asked a small group of college scientists in a variety of fields the following question:

> In your opinion is a questionnaire ever an appropriate instrument for use in the conduct of serious research in any scientific field?

From seventy-five to a hundred percent of each of eight scientific groups catechized gave at least a qualified yes to the foregoing question.[4] Kelley closes thus:

> Let me conclude this investigation of the value of the questionnaire by saying that unless and until experimental science relieves us of the need of human judgments, or removes from our minds an interest in unique events, this wayward child of science, feeble as it is, will remain an indispensable helper. It will thus be always needed, and we can but hope that it will curb its intrusive disposition and mend its unseemly ways.[5]

Illustrative questionnaire investigations. A moment's thought will convince those in touch with educational investigation, that many significant studies lean heavily upon data obtained by questionnaire.

Counts has published several investigations of recognized merit largely based on questionnaire results. His study of boards of education [6] is a recent example. After making generous allowance for a certain degree of admitted inaccuracy of the data, one accepts this investigation as reliable. It presents the most complete analysis of the make-up of school boards made to date and raises a series of fundamental questions concerning their composition. It would have been impractical to have undertaken this study except by questionnaires.

---

[1] Koos, Leonard V. *The Questionnaire in Education.* Macmillan Co., 1928, p. 138.
[2] Ibid. page 57-68.
[3] Kelley, Truman L. *Scientific Method*, page 43.
[4] Ibid. page 50.
[5] Ibid. page 83.
[6] Counts, George S. *The Social Composition of Boards of Education.* Supplementary Education Monographs, No. 33, Univ. of Chicago, Chicago, Ill., July, 1927. 100 pages.

Another study based largely on questionnaire data is that by Buckingham concerning teacher supply and demand.[1] In spite of shortcomings which the author points out in this study, it deserves to rank as a major contribution in an important field, and one about which the teaching profession will hear much during the next decade.

Terman's studies of genius [2] represent an entirely different field in which considerable use was made of questionnaires. Whatever interpretation one may make of the facts presented in this study, and upon whatever side one may array himself in the merry battle of nature versus nurture, he can hardly fail to place this among the more important studies of recent years—modifying or over-turning as it does many popular fallacies concerning that important element of our human resources, the gifted child.

Koos is another well-known investigator who has used the questionnaire extensively. A series of question blanks constituted an important means of assembling the data upon which he based his authoritative study of the junior college.[3] Few would question the great value of Koos' investigation of this important movement. Surveys such as this would either be prohibitively expensive, or much less comprehensive, but for the questionnaire.

Briggs' early and widely influential book on the junior high school [4] used questionnaire returns from many schools as one of several methods of securing data.

Charters and Waples used the questionnaire as one of several methods of securing data in their teacher training study.[5] This fundamental investigation presents a picture of the evaluated activities and traits of certain types of teachers and should be of large value in the construction of professional courses for teachers.

Questionnaires were one of the principal tools of inquiry in the recent modern foreign language study. Volume four [6] of this investigation, dealing with enrollment in foreign languages, is largely based on questionnaire replies. Few will doubt that this inquiry is of major significance to secondary school and college development in the United States.

Judd's study of the length of elementary education [7] based partly on data collected through question blanks arrives at this important conclusion:

> Ample evidence is present in the experience of the United States and Canada that elementary education of satisfactory degree of richness of content can be provided in seven grades.

The Land Grant College survey now being conducted by Arthur J. Klein of the United States Office of Education secured much of its data from a series of carefully prepared, but none the less long and detailed questionnaires. When this study becomes available shortly, it will doubtless constitute the most fundamental survey of an important section of higher education which has yet been made.

The foregoing illustrations which might be duplicated many times [8] are sufficient to prove that questionnaire investigation does result in contributions of major significance.

The questionnaire as a trail-blazer—The foregoing paragraphs present evidence as to the value of the questionnaire as employed in fundamental educational investigation usually by the college specialist. It is also used in another form of investigation which, though not as fundamental as careful research, is nevertheless important.

The question blank is frequently of particular value as a trail-blazer to educational investigation. Suppose one is contemplating a study, let us say, of the progress which has been made in developing differentiated curriculums to meet the varying aptitudes of secondary school attendants, and his method is to be an intensive case study of the content and

[1] Buckingham, B. R. "Supply and Demand in Teacher Training." *Bureau of Educational Research Monograph*, No. 4. The Ohio State University, Columbus, Ohio, 1926. 182 p.

[2] Terman, Lewis M. et al. *Genetic Studies of Genius*. Vol. I. "Mental and Physical Traits of a Thousand Gifted Children." Stanford University Press, Stanford University, Calif, 1926. 648 p.

[3] See: Koos, Leonard V. *The Junior College*. Vols. I and II, Research Publications of the University of Minnesota, Education Series Number 5. Minneapolis, Minnesota, 1924. 682 p.
Also see: Koos, Leonard V. *The Junior College Movement*. Ginn and Company, Boston, 1925. 436 p.

[4] Briggs, Thomas H. *The Junior High School*. Houghton, Mifflin Co. Boston, 1920. 350 p.

[5] Charters, W. W. and Waples, Douglas. *Commonwealth Teacher Training Study*. The University of Chicago Press, Chicago, 1929.

[6] Wheeler, Carleton A. and Others. *Enrollment in the Foreign Languages in Secondary Schools and Colleges of the United States*. Modern Foreign Language Study. Vol. IV. The Macmillan Co. 1928, 453 p.

[7] *Report of the Commission on Length of Elementary Education*, Charles H. Judd, Chairman, Supplementary Educational Monographs No. 34, University of Chicago Press, Chicago, 1927. 167 p.

[8] Among the notable investigations not referred to, which have made some use of the questionnaire, are those of the Educational Finance Inquiry Commission (George D. Strayer, Director), the Studies in Adult Education (Edward L. Thorndike and others), published by Macmillan; and the studies of the Commonwealth Fund, see page 512 of *School and Society*, April 28, 1928.

affect of differentiated curriculums in ten high schools. It would be sheer folly to select ten high schools at random for this purpose. Rather, a brief exploratory questionnaire should go out to a large number of high schools in order to discover those which have done most to develop differentiated curriculums. Then the study should go forward in the ten schools where conditions promise most for the investigation. The questionnaire is frequently an effective method of locating the veins of ore which may be worked with most profit.

The school superintendent and questionnaires—Another part of this bulletin considers the problem which superintendents of schools encounter in dealing with questionnaires. Pertinent here, however, is the fact that superintendents and their staffs are among the most prolific distributors of questionnaires. It is likely that they will continue to use them. The questionnaire is frequently the only means of obtaining certain types of information which superintendents of schools and members of their staff must have.

The school executive is the spearhead of educational progress so far as practical application is concerned. New issues are constantly arising, and he must frequently advise his board on short notice concerning a policy about which little or nothing is in printed form. What is he to do? It is stupid to say that he should base his advice solely on his own opinion, when he may circulate a brief questionnaire among a few fellow superintendents and secure other judgments on the policy at issue.

It is unlikely that scientific research, or logical reasoning—either or both—will ever anticipate all of the problems which the practical school executive will encounter. Common practice and experience will doubtless always be one of the guiding forces in educational development. The questionnaire is one means of tapping this experience. It will, and should continue to be employed for this purpose.

Questionnaires often the only way—Finally, there remains the very important consideration that there is frequently no practical substitute for the questionnaire. Koos concluded that only a negligible proportion of the 143 fundamental questionnaire researches which he analysed could have used any other method of investigation.[1] The same may be said concerning most of the carefully prepared questionnaires of the trail-blazing type—those which nominate desirable subjects for more careful investigation. Likewise, questionnaires circulated by school executives, those which collect information as to current practice and secure judgments on educational innovations, frequently seek unavailable information which it is not practical to secure otherwise.

Summary and conclusion—The first part of this chapter views the objections raised against the use of questionnaires in educational investigations. It has been stated that this method of inquiry requires much effort by the investigator for inconclusive results, assembles data that are unreliable and inaccurate, places too heavy a burden on respondents, and is generally poorly applied. Analysis of the foregoing objections indicates that they consist mainly of criticisms of the abuse rather than the right use of the questionnaire, and that there is insufficient basis either in the form of theoretical criticisms or objective evidence to justify a sweeping condemnation of this instrument of educational investigation.

The case in favor of the questionnaire is also examined. Evidence presented indicates that questionnaire studies have contributed substantially to the store of educational knowledge. The questionnaire serves a useful purpose in discovering veins of ore which deserve intensive working by research specialists. It is also considered an essential tool by many school executives in securing information concerning school practices and procedures. It would not be practical to obtain much of the information assembled by questionnaire which contributes to the foregoing significant outcomes through any other means.

The abolition of this method of inquiry would work an unnecessary hardship on the scientific investigator in education as well as upon the practical school executive. No general abolition is necessary. The abuses which have risen out of the circulation of questionnaires can be corrected by voluntary, cooperative regulation along lines suggested in a subsequent chapter. It is important that this method of correction be taken. Otherwise, one of the methods of inquiry which has substantially contributed to educational advance will be cut off at the source.

[1] Koos, Leonard V. *The Questionnaire in Education*. page 64.

Better Preparation of Questionnaires

Elsewhere in this Bulletin it is suggested that a principal cause of the disfavor in which many hold the questionnaire method of investigation is the lack of skill with which it is used. This section will suggest certain guides for the preparation of questionnaires. These guides are based partly upon the experience of the Research Division in preparing questionnaires for investigations sponsored by the National Education Association and partly upon the advice of previous writers on this subject.[1] Before listing specific suggestions, attention will be given to certain preliminary conditions which the investigator should settle before he begins to prepare his blank.

Preliminary Considerations

The topic investigated should be a worthy one. It is extremely difficult to set up objective criteria for judging the worth of a proposed subject of study. Yet it is true that some questionnaires deal with educational questions which the great mass of competent critics would classify as significant, while others waste energy collecting data on matters of little importance or, as has been said, marshal battalions of data to prove something which everybody knew already and which makes little difference anyway. The advice of one or more experienced investigators is perhaps the best guide as to the worth of a subject proposed for questionnaire study. If several experts agree that it is a topic which can best be studied by this method, then there is some warrant for proceeding.

The foregoing is particularly pertinent for the inexperienced investigator such as the typical graduate student. It will be less helpful to the practical school executive confronted by the necessity, real or supposed, of quickly assembling data to shed light on some moot question of policy being considered by his school board. For example, it may appear a trivial matter to some people whether it is the practice to divide a teacher's annual salary into nine, ten, twelve, or twenty-four payments. But the school administrator sometimes is unexpectedly confronted by a situation where he feels he must have facts and opinions on such a point—and in a hurry. What is he to do? Perhaps in the end circulate a questionnaire. But before deciding to do this it would be well to ask these questions:

1. Would a special delivery letter or telegram to some recognized agency of educational information [2] bring the material desired?
2. Is it not likely that the flare-up which prompts the questionnaire will have passed before the information needed can be assembled?
3. Will not a little hard thinking on the subject by the superintendent and members of his staff be as safe a guide as the median of a series of discordant practices, or the average of off-hand opinions, which are frequently what one gets in reply to a questionnaire on trivial topics?
4. Will not a few hours' search in the local school or public library be more productive than the same time spent in issuing and tabulating a hastily prepared questionnaire?

If the answer is no to each of the foregoing questions then perhaps it is justifiable to dispatch a questionnaire for the information desired. But the burden of proof is on the investigator who takes the time of busy people to fill out a blank assembling data on ephemeral issues of local interest.

Adequate sponsorship should be secured—Discriminating respondents consider the sponsorship carried by a questionnaire to be an important criterion in deciding whether to answer it or not. If from a recognized agency, usually jealous of a good reputation, it is likely to have been carefully prepared. These are among the offices whose sponsorship carries a measure of guarantee that the questionnaire is worth answering:

1. Office of superintendent of schools particularly when his staff includes a person qualified to conduct educational research.
2. Schools or departments of education functioning through a research bureau or a professor who personally sponsors the inquiry.
3. Governmental agencies concerned with education, state and national.

[1] See the bibliography, pages 47-9.
[2] See pages 44-7 for sources of information.

4. State and national education associations with facilities for expert guidance in research.

The majority of questionnaires sponsored by agencies comparable to the illustrations above are carefully planned, and will directly or indirectly render some return to those who answer them.

The questionnaires issued by most local teachers' organizations are poor. Officers of these organizations would do well to secure the aid of some qualified representative of an agency such as those listed above before sending out questionnaires.

Graduate students of education seeking thesis material should secure the advice of one or more qualified investigators such as their professors or the assistance and endorsement of a recognized agency of research before launching a questionnaire.

Agencies with facilities for sponsorship should take this responsibility seriously. The questionnaire should not only carry the name of the sponsoring organization, but that of a particular representative, qualified to appraise investigations.

Most unnecessary and poorly prepared questionnaires can be kept from circulation if questionnaire-makers will seek expert advice on, and official endorsement of, their inquiry blanks, and if respondents return unanswered most of the questionnaires which do not carry these passports.

The investigator should know the field—It has been said that he who takes little knowledge into a strange land carries back little knowledge. Likewise, he who knows little about a subject will be able to gain little through a questionnaire. In order to ask intelligent questions in a field of study it is necessary first to become a student of the field. To construct a questionnaire inquiring about the organization of school systems, which assumes the existence of no other type of school organization than the 8-4-4 plan, would be folly. Yet inquiries making such assumptions have been circulated.

The literature and research bearing upon the proposed investigation should be carefully studied. One is repeatedly surprised at the amount of material which is already available on nearly every educational question. It may not be the last word, and may merely testify to the need for more study on the same topic, but it deserves consideration. If it does not receive it, the principal outcome of the questionnaire may be to advertise the ignorance of the investigator to those who know the field. Before drafting a questionnaire, therefore, prepare as complete a bibliography [1] on the topic as is possible, and evaluate the references cited therein.

The scope of the problem should be carefully delimited—The student of education frequently has the experience of beginning to study a subject which at first appears to be a unit question, only to find that it soon divides and ramifies into a whole series of issues, which must be dealt with one at a time. This fact justifies the advice: clearly define the problem and scope of your study before you draft the questionnaire. Study the topic being investigated until its various strands are separated, and a deliberate choice is made of those which are to be the subject of inquiry.

Observance of this principle usually calls for a clear-cut decision as to whether the questionnaire is to have wide scope and eschew details, or cover a limited field and delve deeply. Below are some of the questions of a successful questionnaire [2] which sought to touch lightly, but to range widely over the field of teacher personnel:

Married Women as Teachers

Has your board of education a rule or policy against the appointment of new teachers who are married women?

Yes..... No.....

(Indicate answer by check mark.)

Does your school board require women teachers who marry to give up their positions at once? Yes..... No..... At the end of the school year? Yes..... No.....

(Indicate answer by check mark.)

Written Examinations

Does your school system conduct written examinations in any form in connection with employing new teachers?

---

[1] A librarian will be able to cite the guides to educational literature most helpful in preparing a bibliography. Also consult such references as numbers 18 and 24 in the bibliography in this Bulletin. Reasonably recent and complete bibliographies on many topics may be obtained from sources of information given on pages 44-7.

[2] See page 251, "Practices Affecting Teacher Personnel," *Research Bulletin of the National Education Association*, September, 1928. Vol. VI, No. 4.

Yes..... No.....
(Indicate answer by check mark.)
In connection with promoting employees within the service? Yes..... No.....
(Indicate answer by check mark.)

Sick Leave

What part of the regular salary is paid to teachers taking sick leave? (Check below.)
Full salary.....
Half salary.....
Full salary, less pay of substitute.....
Some other fraction of salary.....
No salary.....
If sick leave with some salary is allowed:
a. How many days are allowed in one year?.....
b. Is the allowance cumulative, i. e., may the days not used during one year be added to those of later years?
Yes..... No.....
(Indicate answer by check mark.)
c. During how many years may sick leave allowance accumulate? .....
(Indicate no. years.)

The questionnaire method is at its best when it employs questions such as the foregoing. It is less satisfactory in securing details of operation. Personal interview or individual correspondence is often the only reliable method of getting such information. It is hard to go wrong in answering the preceding questions. But when one attempts to develop one of these into a series of detailed questions, he should anticipate a reduction in the reliability of replies.

The wide-ranging as opposed to the deep-delving questionnaire is particularly valuable in uncovering pay-ore territory for future intensive investigation. For example, the questions above on examinations would reveal the cities worth investigating if a study were proposed as to the use of written examinations in selecting and promoting teachers. Several studies in the teacher-personnel field have made their take-off from data revealed by the questionnaire partly reproduced above.

Whether one's inquiry is to deal intensively or extensively with a field will depend on the object and scope of the study. If this has been clearly thought out, one will know when to use the extensive as opposed to the intensive type of question.

Data should not be collected by questionnaire if otherwise obtainable—If the investigator will take thought on this point before preparing a questionnaire form, he may discover other means for getting the material he needs. It may be found that intensive, personal study of a few situations will produce more valuable results than a questionnaire sent broadcast.[1] School records and reports, governmental reports, and the publications of educational foundations and associations contain a wealth of raw data of value to the investigator.

One who has carefully studied published material in the field of his inquiry is not likely to ask for information already available. The following statement is pertinent with regard to the unnecessary use of questionnaires:

> In the first place let us remember that the questionnaire is often a lazy man's method of getting alleged information that could be much better obtained in some other way. It is easy to sit down in the quiet of one's study and make out questions for someone else to answer. But such a method is very wasteful of the time and energy of the one to whom it is sent and is frequently wasteful of the time of the maker, for these questionnaires not infrequently find their way into the waste-paper basket, and many of them should. One has no right to take the time of someone else in answering questions when he himself can find the answer elsewhere. Nor, on the whole, can he consistently ask someone to spend his valuable time in work that will not presumably prove of value to him or his school. After he has decided upon the data he wishes, he should search through all available material to see whether these data cannot be obtained through printed reports. If they can and he does not have the reports, he should send for them and get the data for himself. If the data given in the reports are not in the exact form in which he wishes them, he should change his own plan to fit the form used, where this is possible.[2]

The follow-up should be anticipated—It is usually desirable to send at least one follow-up

---

[1] The following is a good example of a study which, although based on but a small number of cases, exceeds the value of many broadcast questionnaire studies: Rufi, John. "The Small High School." *Contributions to Education*, No. 236, Bureau of Publications, Teachers College, Columbia University, New York City. 1926. 145 p.

[2] Jones, Arthur J., Chairman, National Committee on Research in Secondary Education, *An Outline of Methods of Research with Suggestions for High School Principals and Teachers*. U. S. Bureau of Education, Department of the Interior, Bulletin, 1926. U. S. Government Printing Office, Washington, D. C. 1927. 31 p.

letter a short time after a questionnaire has been mailed. The vigor and number of follow-ups will depend upon the questionnaire. If failure to respond is an outgrowth of some factor of selection, then a follow-up campaign is necessary. But the danger of a selected response does not always hold, as Koos points out:

> This danger by no means always obtains. It is important for the investigator to consider the likelihood and influence of selection and, if a practically full count seems essential, take the necessary steps, such as repeated inquiry, to secure it.[1]

Toops'[2] study, in which a 100 per cent return on a questionnaire was obtained through the use of six follow-up letters, supports Koos' contention that the danger of a selective response is not present in all questionnaire investigations. The essential conclusion of Toops' study is that additional replies brought in by the follow-up letters did not essentially change his conclusions.

Lindsay's[3] investigation suggests that when follow-up letters are to be used they should begin to go out within two weeks after the questionnaire has been mailed, rather than waiting longer, and until there is a slackening in the receipt of replies.

The cost of providing and mailing the follow-up letters should be anticipated as a part of the total cost of the investigation and before the decision to make the study has been made.

Plans for tabulating should be formulated early[4]—Too often investigators have little idea of the time required to tabulate replies. The authors of a number of the questionnaires followed up by the Research Division reported that no use was made of the replies because of lack of facilities for tabulating. Others reported the work partly completed but at a standstill due to the lack of facilities for completing the job. Such an embarrassment can be avoided if the investigator will have from five to ten questionnaires filled out in the tryout suggested on page 22, and will keep an accurate count on the time required to tabulate them. An estimate can then be made of the total time required to handle the expected number of replies. If it is more than one is equipped to furnish with reasonable promptness, then the questionnaire should be shortened and the number sent out reduced.

The method of disseminating results should be settled—This involves typing, and duplication in some form, printed or otherwise. The cost of duplicating the results of an investigation in quantity sufficient so that there can be a reasonable dissemination of results will be considerable, particularly if it involves tabular material. The probable number of tables, their size and character, and the amount of running text should be estimated ahead, and an estimate of the price for mimeographing or printing obtained.

Finally, there is the problem of mailing the study, or at least of notifying respondents of its completion and availability. This should be an integral part of every questionnaire investigation. At the very least, the questionnaire should contain a question such as "Do you desire a copy of the tabulated replies to this questionnaire?" and all who respond affirmatively should be taken care of. Preferably, the questionnaire should make a definite promise that a copy of the results will be mailed to all respondents, or at least that respondents will be promptly notified when results are available. The latter practice is acceptable when the study appears in a magazine or as a separate publication, the cost of which is too great to permit free distribution.

When the material is to be used by a graduate student in a thesis it is enough, and usually preferable, that a brief summary of the results be mailed to the respondents. But enough copies of the complete study should be available so that a copy may be borrowed by an interested respondent. Few things have done more to bring the questionnaire method into ill repute than the practice of some universities[5] of permitting graduate students to bury a few typewritten copies of the results of questionnaire

---

[1] Koos, Leonard V., *The Questionnaire in Education*, p. 167.
[2] Toops, H. A. "Returns from Follow-up Letters to Questionnaires." *Journal of Applied Psychology*. 10: 92–101; March, 1926.
[3] Lindsay, E. E. "Questionnaires and Follow-up Letters." *Pedagogical Seminary* 28: 303–7; September, 1921.
[4] Also see pages 21, 25, and 36.
[5] The Research Division in seeking to secure copies of unpublished graduate dissertations for the use of important committees of the National Education Association has, in some instances, found it a time-consuming process to borrow these investigations from some college libraries. The question is raised: If a study is of sufficient value to justify the granting of an advanced degree should it not be a requirement that it be printed in full, if for the doctorate, and at least in summary form if for the masters degree?

studies, some of which are of real significance, in the university library.

If the investigator is convinced that the information he wants will shed light on a worthwhile question, that his questionnaire is well sponsored, that he has a sufficient mastery of the subject to prepare an intelligent questionnaire, that he has carefully delimited the scope of his investigation and therefore knows just what he wants, that he can get the desired data only through a questionnaire, that he is in a position to handle the replies with reasonable promptness, and to render respondents a proper return for the time which they will donate, then only is there justification for actually drafting the blanks.

Preparing and Sending the Questionnaire

The following guides should be suggestive. They are not invariable principles but can be observed with profit in most cases.

The questionnaire should preferably deal with matters of fact—This method is often at its worst when it attempts to discover truth by collecting subjective opinions or judgments. It is extremely difficult to anticipate all the implications and qualifications which will affect the respondent as he seeks to reply to a subjective question. The following may appear to be a simple question:

> Do you believe school systems should adopt the platoon school type of organization?
> Yes ..... No .....

But when one comes to answer it a swarm of considerations arise to befuddle the respondent. Just what is meant by a platoon school? Is this form of organization equally effective in all grades? Would it not be better to experiment first in a few schools? Are not the school plants of many cities such that it would be impossible to install the platoon plan, except at its worst? At about this time the respondent either flips a coin to determine his answer, or throws the questionnaire into the waste-basket. The prejudice felt against the opinion-seeking questionnaire is stated by one school executive as follows:

> The true questionnaire devotee never asks at the information desk at the North Station, "When does the next train leave Boston for Springfield?" He seeks the opinion of all experienced travelers sitting in the seats of the waiting room and, with his slide rule busily working, he hurries to the train gate.[1]

The following are some of the reasons which suggest the desirability of reducing the number of questions calling for subjective replies to a minimum:

1. Questionnaires seeking opinions get a relatively poor percent of reply.[2]
2. The hastily expressed opinions of a large number of judges of varying merit are probably of less value than the mature judgment of one or two experts who have the question clearly in mind, and who are able to qualify their answers appropriately.
3. Answers to questions of opinion if thoughtfully given are time consuming, and cannot be delegated to a clerk.

The foregoing should not be interpreted as a blanket condemnation of a certain valuable type of questionnaire investigation in which the attempt is made to study opinions as such without regard to their innate value. In such cases opinions become a species of fact worthy of study in and for themselves because of the light which they may throw on problems. Illustrations of studies of this type are cited below.[3]

Both Koos[4] and Kelley defend the questionnaire as an instrument for determining consensus of opinion. After pointing out the difficulty of securing exact measures of human opinion, Kelley says:

> "The instrument for attacking this problem is the questionnaire. Is this not a superb anticlimax? Here I have described the most difficult field of research, and that possibly the most pregnant for human welfare, and propose for its handling the weakest device that has ever obtruded its prying and at times discourteous self into the respectable field of science. Though I must admit all of this, I would ask how in the realm of mental values is any approach conceivable except that which ascer-

---

[1] Butterfield, E. W. "The Plenary Inspiration of the Dotted Line." *Educational Review* 69: 1–4; January, 1925.
[2] See figures given on page 36.
[3] Jones, Vernon. "Disagreement Among Teachers as to Right and Wrong." *Teachers College Record* 31: 24–36; October, 1929.
Todd, William Hall. *What Citizens Know About Their Schools.* Contributions to Education, No. 279. Bureau of Publications, Teachers College, Columbia University, New York City. 1927. 86 p.
[4] Koos, Leonard V. *The Questionnaire in Education*, page 147.

tains what the valuing agents assign to be the values?"[1]

Experts can perhaps use the questionnaire effectively in securing a valuable consensus of human opinion on certain topics. The beginner in the field should reduce the number of questions asking for subjective opinion to a minimum.

Especial care should be used in selecting a group of respondents who are competent to express an opinion on the subject of investigation. The number of replies is less significant than who replies—quality is of far greater importance than quantity.

Ask only for data which respondents can and will give—Koos emphasizes this principle under the criteria of ability and willingness.[2] When dealing with matters of fact, the questions should ask for information which the respondent may reasonably be expected to have available. When dealing with matters of opinion or judgment, the competence of the respondents to give the desired judgments should be considered.

Questions dealing with matters of fact may ask for information in the personal knowledge of the respondent, or for information reasonably available from school records. Care should be taken to keep to a minimum the number of questions which will require extensive searching of school records. The extent to which an official will go in searching out information not readily available will depend on the apparent value of the investigation.

Care should be taken to include in the questionnaire blank only questions which can be answered by the person addressed or by his immediate staff. For this reason it is usually unwise to include in the same blank a series of questions which must be circulated among a number of people, for example, the high school principal, the general supervisor, the special subject supervisor, or other specific school officials. The answering of such an inquiry entails considerable correspondence to round up replies from the several sources of information and therefore places a burden on someone. For this reason, and because the percent of replies is likely to be low, questionnaires which require replies from several different persons should be eschewed whenever possible. When they are necessary, the cooperation of the superintendent of schools should be enlisted in the project before the questionnaire is sent to a city.

Questions are sometimes asked which it is difficult for anyone to answer except by a wild guess. The following illustrations are from actual questionnaires:

> When Cumulative Sick Leave has been well established, do you consider the annual amount for sickness allowed by the Board would be materially greater than before the time of making Sick Benefits Cumulative?
>
> If you have in use the single salary plan, what was the effect of its introduction on the salaries of high school teachers?
>
> Is your janitor interested in the welfare of the children? Is the manner of his voice pleasing?

The inclusion of such questions shakes the confidence of the respondents in the competence of the investigator. Replies to such questions are of little value.

Then there is the question which indiscriminately asks ages, or other personal questions which many dislike to give. Sometimes an honest reply might later embarrass the respondent, for example:

> Does the school board ignore the superintendent in many instances and thus assume authority rightly belonging to the superintendent, yet holding the superintendent responsible for the general success of the schools?

The willingness of the respondent to reply needs to be anticipated. Questions which call for information of a highly personal nature, which call for answers reflecting on others, and which prematurely commit one on highly controversial issues are likely to reduce the percent of reply. When it is necessary to include such questions a promise to report results in such form that they can not be traced to individuals, or a waiver of signature, may increase the willingness of the respondent to give complete and accurate replies.[3]

The questionnaire should be as short as possible—Short questionnaires tend to obtain a

---

[1] Kelley, Truman Lee. *Scientific Method.* p. 39.
[2] Koos, *op. cit.*, p. 99.
[3] Koos, *op. cit.*, p. 99.

higher percent of return than long ones. The present investigation included twenty questionnaires containing five items or less, which received a median return of 78.5 percent, as compared to a 69.0 percent return on the 136 investigated. Table 9, page 34 shows that, in general, the percent of return decreases as the length increases.

An effort should be made to eliminate every question not essential to the problem. Many questionnaires contain one or two queries the replies to which can not be utilized. The time of everyone concerned would have been saved by the omission of such questions.

On the other hand, the few replies to a long and detailed questionnaire may be more valuable to the investigator than a nearly complete response to a shorter questionnaire on the same topic. The investigator should weigh the possible advantages of a high percent of replies to a short questionnaire, as compared with a large amount of information from the few generous respondents who will answer a long one.

In certain cases the long questionnaire, which has been carefully prepared, which is adequately sponsored, and which deals with a subject of general interest, receives a high percent of return. For example, the longest and probably the most difficult questionnaire in the 267 obtained for this study received a return of 88 percent. The blank related to the cost of instructional supplies, and their distribution to the various grades in the school system. It was 16 pages long, and called for 1,833 items of financial statistics. It had been preceded by a letter to superintendents of schools, describing briefly the plans for the study, and inviting them to cooperate. The superintendents of 125 cities expressed a willingness to cooperate, and 110 of them furnished the information requested.

Questions should be simply and clearly worded—No respondent should be expected to puzzle out a questionnaire. One should be able to make his wants known in simple language. If he cannot give a brief and clear explanation of the plan of his inquiry, it is probably not suited to the questionnaire method, and he should either simplify his plan or change his method of collecting data.

The simplest form of inquiry, and the kind most easily answered, consists of a series of complete questions, each of which can stand alone, independent of context. For the short questionnaire, this is the most desirable form.

When an inquiry is very long and detailed, however, it may be simplified by casting it into a tabular form with directions to the respondents as to the method of answering. In preparing a tabular form for recording statistical data, great care is required in the wording of column headings and definition of items included. The blanks used by the U. S. Office of Education[1] for the collection of statistics on school personnel and finances illustrate the working out of this principle in a practical situation.

The tabular form may also be used to simplify the long questionnaire dealing with non-statistical data. For example, a questionnaire dealing with functions in health education may list a series of possible activities carried on in this work, preceded by a request that the respondent check those functions performed in his local school system. Or it may be somewhat more detailed, providing separate columns headed "classroom teacher," "school nurse," and "school doctor," with directions to check the functions performed by each.

But the investigator must guard against too great complexity. To carry further the example of the questionnaire on health functions, he might ask the respondent to use one check when the function is performed frequently, and two checks when performed infrequently, and to indicate in another column, by letters "A," "B," and "C," the relative importance of having the function performed at all. Unrestrained, he may even add additional columns to be filled in, headed "Grades Included," "Number of Pupils Reached," "Year When Function Was First Performed," and "Desirable Outcomes of the Function," the latter column provided with a numbered code of possible answers, and instructions to enter the code number instead of the actual answer.

Questionnaires of this complicated type frequently ask for data of value, but they defeat their own purpose through their bewildering plans for getting responses. The investigator

[1] See page 289 ff. of "School Records and Reports," *Research Bulletin of the National Education Association*, Vol. V, No. 5.

cannot expect his own interest to be equalled by the respondent to the extent of puzzling out an involved and intricate scheme for recording facts.

The necessity for clear wording applies not only to the general plan of the questionnaire, but to the separate questions within it. Each question should be so clearly worded that all respondents will interpret it the same way. It is only by the most painstaking efforts, preliminary trials and revisions, that questions can be prepared which are entirely clear, and which will mean the same to all respondents. Such an ideal is hard to achieve, but the value of the results of the study will depend largely on this factor.

That the form in which a question is asked influences the reply received has been pointed out by investigators dealing with the question in various situations.[1] The order of a question in a series also affects the answers which will be given.[2] The significance of these facts should be understood by those who would use the questionnaire effectively.

The questionnaire should require a minimum of writing—Every effort should be made to reduce the writing necessary to answer the questionnaire. It should be worded so that the answers may be expressed by yes or no, check marks, underlining or encircling, by figures, or by short answers of a few words.

The investigator wants to be sure, however, that his questions are suited to this type of response. In wording a question to be answered yes or no, one should see that it can be answered with an unqualified affirmative or negative. The following are examples of yes or no questions to which few school officials could give a categorical answer:

Is there more than one clerical assistant in each school?

Is the cost of building foundations below street level, underground pipes, excavations, and sidewalks, included in the total amount of insurance carried?

Is your department so organized that you consider the interpretation of the course of study to your staff members more important than the construction of the curriculum?

If you have kindergartens, do they accommodate all eligible pupils?

When listing a series of answers for checking, underlining, or encircling, care should be taken to cover all the possible cases, or to provide space for "Other Response." In many cases, it will be desirable to ask a direct question to be answered with a few words. When such a short-answer question is so clear that its meaning is the same to all respondents, the replies are comparable. It is more likely to bring to light unusual practices than questions which list a series of alternative answers.

Care must be taken, however, to limit the scope of the short answer question so that its replies can be tabulated and summarized. The question which invites the respondent to write an essay produces replies which cannot be tabulated. Rather than essay questions, it is better to ask short answer questions, and to provide a space for "Remarks" where additional details will be recorded by those willing to give them.

Responses should lend themselves to tabulation—Rugg has well summed up the advice which is pertinent on this point:

> **The answers to "general" questions seldom can be tabulated and definitely interpreted. It is a safe rule to follow that data which do not lend themselves to tabulation and statistical treatment are of negligible value to the investigator. That is, answers should be definite and susceptible of tabular classification and this should be a controlling criterion in the planning of questions.[3]**

Emphasizing the thought still further Rugg suggests that the investigator work out the tabular forms for entering the replies to his questionnaire at the same time that he prepares his blank:

> **This means the planning of the specific headings of the tables to be compiled, and will require definite decisions concerning the arrangement of questions and the probable types of returns to secure. Preparation of the tables will lead to a clearcut, logical arrangement of questions, so put together as to facilitate a clear presentation and discussion**

---

[1] Weidemann, Charles Conrad. *How to Construct the True-false Examination*. Contributions to Education, No. 225. Bureau of Publications, Teachers College, Columbia University, New York City. 1926. p. 41–67.
Muscio, Bernard. "The Influence of the Form of a Question." *British Journal of Psychology* 8: 351–89; September, 1916.
[2] Mathews, C. O. "The Effect of the Order of Printed Response Words on an Interest Questionnaire." *Journal of Educational Psychology* 128: 34; February, 1929.
[3] Rugg, Harold. *Statistical Methods Applied to Education*. Houghton, Mifflin Company, Boston, 1917. p. 47.

in the report. A little time spent at this stage of the work will aid much in the later organization of the completed discussion.[1]

Each question should be so worded that it can be answered by a single statement. Questions are frequently asked which require two answers, such as the following:

Are you contemplating a change in history textbooks, if so which one are you considering?

Do you study occupations as a group or are the boys and girls receiving separate instruction?

Has any legal action directly applying to primary grades been taken and what?

Frequently the respondent will read only half of such a double question and answer yes or no to the despair of the tabulator.

A careful examination of individual questions with this principle in mind will often reveal some of the replies which it will be impossible to tabulate, or which will consume much of the tabulator's time and give uncertain results at best. Such questions had best be eliminated or recast.

The questionnaire should be given a preliminary tryout—The extent of the preliminary trial will depend on conditions. It should be remembered, however, that the dependability of the answers may be strengthened materially by thoroughly trying out the form. One easy test, which should be made of even the simplest questionnaire, is to try it out locally. Before duplicating the form, the investigator should have typed copies of the questionnaire answered for his own local school system. If a few copies are sent out to nearby cities, the replies will almost inevitably suggest needed modifications of the form. Questionnaires going to other groups may similarly be tried out first on a small sampling of those to be circularized.

The National Committee on Research in Secondary Education suggests that before sending out a questionnaire it should go through the following stages:

(a) Very careful formulation by the author and arrangement in the form to be used.

(b) Submission to some expert for advice and correction.

(c) Tryouts on teachers or others not primarily concerned—disinterested persons.

(d) A tryout of the revised questionnaire on a group as nearly like the ones to whom it is to be sent as possible. These tryouts will often show the inaccuracies of statement, the equivocal questions, and other undesirable features that can be corrected before the questionnaire is actually sent out for replies.[2]

If all questionnaires were to pass through the foregoing stages, their authors would not only save their own time and that of their respondents, but would get far more valuable products for their labor.

A questionnaire should meet certain standards of mechanical form—A questionnaire which is poorly arranged and carelessly duplicated is likely to raise doubts in the minds of the recipients as to the ability of the investigator to follow a study through to a successful conclusion. The response will therefore be reduced. A neat, well-arranged questionnaire encourages an accurate, businesslike reply. These are among some of the standards of mechanical form which should be observed:

a. The questionnaire should be neatly reproduced. Typing, if well done, is acceptable if only a small number is being circularized. Mimeographing, multigraphing, and electric typewriting are duplicating processes which produce copies resembling typewriting, and are satisfactory for short questionnaires going to a limited number. Printing is the most desirable method of reproducing questionnaires, and tends to get a better reply. It is especially advantageous when the questionnaire is long, involves tabular and columnar arrangements, and is going to a hundred people or more.

b. The form should contain spaces in which to enter the name, offical position, and full address of the respondent. Allow ample space. It is poor policy to irritate the respondent at the outset by allowing only half enough room for his name and address. Even with such space provided some will forget to use it. It is desirable to know who has filled out a questionnaire in case later correspondence is necessary and for other reasons. If envelopes are pinned to questionnaires as they are opened, the postmark will aid in identifying them if signatures are omitted. Earlier in this section is discussed

[1] Ibid, p. 50.

[2] Jones, Arthur J., Chairman of National Committee on Research in Secondary Education. *An Outline of Methods of Research with Suggestions for High School Principals and Teachers.* U. S. Department of Interior, Bureau of Education. Bulletin, 1926, No. 24. p. 24.

the circumstances under which it may be desirable to waive the signature and other identification.

c. The questionnaire itself should contain the name and address of the investigator. Otherwise, the transmitting envelope is likely to be thrown away, the letter of transmittal lost, and the questionnaire left homeless. Sometimes they are sent to the wrong address and cannot be forwarded as there is nothing to indicate who sent them out.

d. Ample space should be left for the answering of each question. A crowded questionnaire allows no space for the answer longer than average, and encourages incomplete and slovenly replies. Experience has shown that a two-page questionnaire, generously spaced for replies, gets a better reception and response than if it is crowded into a single page. The tryout of the form will suggest the amount of space necessary for the answer to each question. It is desirable to have a line or two after certain short-answer questions, and at the close of the questionnaire for "remarks." Unusual practices, significant qualifications and other material often of great importance to the investigator, will be written in if space is provided.

The purpose of the investigation should be stated—More than one-third of the questionnaires studied failed to state the intended use of the results. Recipients are likely to be suspicious of investigations which have no visible purpose. It is not enough merely to be "interested in the problem of sabbatical leave," or to state "I am making a study of child accounting systems." Rather state "we are in need of these facts to help us establish a sound policy in the payment of teachers during sickness," or "I shall use this in a dissertation at Blank University, which is being written under the supervision of Professor Doe. A summary of the results will be mailed promptly to all respondents." Frankness on this point gives assurance that the material requested is to serve a useful purpose and begets cooperation.

The statement of purpose may be given in a letter of transmittal or in an introductory paragraph on the questionnaire. It should be brief, but adequate, and should not be omitted.

Buckingham would go even farther, and his advice is particularly pertinent if the questionnaire is long and involves the assembling of material not immediately available. He states:

> The receiver of the material should be taken fully into the investigator's confidence and should form his own judgment of the value of the undertaking. It is generally wise to write in advance to the intended recipients of the questionnaire and to acquaint them with the project. Ask them if they believe it to be worth while and if they will fill out the necessary blanks. Otherwise what right have we to "fire" a battery of questions at a group of busy people? To do so is both inartistic and discourteous. There is a brusque sort of effrontery in printing all the hard questions one can frame on a given subject and thrusting them without so much as "by your leave," before the face of a distant and therefore defenseless victim. The stamped self-addressed envelope adds the last excruciating touch.
>
> Investigators could raise considerably the estimation in which the blanks are held and the willingness of people to make them out if they would add to their technical skill in constructing forms an element of restraint and a modicum of courtesy.[1]

Other desirable practices. There are certain other customs which are often desirable under the principle of courtesy, if for no other reason. They follow:

a. A separate letter of transmittal is usually desirable. It offers an opportunity to explain the purpose and extent of the investigation and to give other pertinent information. It should be brief and to the point. Such a letter may be addressed in general terms, for example, "To the Superintendent of Schools" or "To the Teacher of Mathematics." Still better, the name and address of the individual receiving the questionnaire may be typewritten on a multigraphed form. Individual letters to each respondent are desirable in some cases, particularly when the number addressed is less than fifty and the cost is therefore little more than a form letter. If any large number of questionnaires is being sent out the cost will be least for a general form letter, and most for personal individual letters. In some cases, particularly when the questionnaire is very short, the letter of transmittal may be a part of the questionnaire itself, and the cost thereby reduced.

b. It is usually desirable to send two copies of the inquiry form to each respondent. The in-

[1] Buckingham, B. R. "The Questionnaire." *Journal of Educational Research* 14: 54–8; June, 1926.

formation requested is frequently of value to the respondent. The extra copy allows him to record it in proper form, and to have an exact record of his report in case any question later arises. This courtesy is desired and sometimes demanded, particularly by offices of superintendents of schools. The cost of the extra copy is not great when the form is mimeographed or printed. On the first page of the blank should appear the note: "Two copies of this blank are sent, one to be returned to the address indicated, and one retained for your files."

Extra copies will also be needed if a follow-up is to be conducted in order to increase the percent of reply. In order to provide duplicate copies for respondents, to conduct the follow-up, and for other reasons which sometimes develop, it is usually desirable to print three times as many blanks as the number of persons to be circularized. The cost of securing an ample number is less if it is done at first, rather than reduplicating or reprinting the blank.

c. It is usually desirable to enclose a return envelope. The size of the envelope should be determined by the size of the question blank. The envelope should usually be stamped. There are cases when this may not be necessary, particularly if the questionnaire is going to well equipped offices, and the results of the study will be of obvious value to the respondent.

Summary and conclusion—This chapter draws upon the experience of previous investigators and of the Research Division and suggests certain practical guides to questionnaire investigation. It is stated that previous to preparing a questionnaire one should be convinced that the information sought will shed light upon a worthwhile rather than a trivial issue, that the investigation is well sponsored, that he has a sufficient mastery of the field to be studied, that he has carefully delimited the scope of his investigation, that the desired data can be obtained only through questionnaires and that he has facilities with which to handle the replies with reasonable promptness and to render respondents a proper return for the time they will donate. Satisfied as to these essential preliminaries the investigator may proceed to the drafting of his blank observing these criteria of good questionnaire preparation: The question blank should preferably deal with matters of fact, which respondents are able and willing to give, rather than with opinion or judgment. The number of questions should be reduced to a minimum by eliminating non-essential inquiries, be clearly and simply worded, and require a minimum of writing by the respondent. The response to questions should lend themselves to tabulation. This and other desirable features can be best guaranteed by a preliminary tryout of the blank. The questionnaire should meet certain standards of mechanical form such as legibility, neatness, proper spaces for responses, should be fully identified, and should be accompanied by a brief and frank statement of the purpose of the investigation. It is desirable also to provide a letter of transmittal, extra copies of the blank, and a return envelope. These criteria of good questionnaire preparation should not be looked upon as invariable principles but usually can be observed with profit particularly by inexperienced investigators.

Reporting Questionnaire Results

Many books and articles are in print which describe proper statistical and other procedures in handling educational data.[1] One who would make effective use of facts assembled by questionnaire should be familiar with these writings. They apply quite as much to the handling of data from questionnaires, as to those from other methods of investigation.

This chapter will not attempt to recapitulate the general principles which should guide one when he reaches the stage of presenting the results of an investigation. Rather, at the risk of stating the obvious and of dealing with details too trivial to mention, it will make certain specific suggestions, the observance of which would improve many studies based upon a questionnaire. These suggestions should be of most help to the relatively inexperienced investigator with meager resources for securing expert advice in reporting the results of his study.

The report should be properly identified—Some of the questionnaire reports reaching the Research Division, particularly those in mimeographed form, contain little to indicate where and by whom they were prepared. Every study should have a title, stating the subject of inquiry as definitely as brevity will permit. The name, official position, address of the investigator, and the date of the investigation also should be given. These are essential even though the belief is that the report is purely of local interest. It is best not to be too modest in this regard. The investigation may come to the attention of outside people, even if only by accident, and may be of interest to them. It will be of more value to the outside investigator if he has some means of identifying the origin, the age of the data, and the position of the investigator.

There should be an organized presentation. No rule of thumb can be laid down as to how one should proceed in presenting the results of a questionnaire investigation. Different studies will deserve varying treatments. An organization of one's report under a series of headings such as the following will usually be desirable:

a. Statement of purpose or problem of study. A description of the unsolved question on which the study sheds light.

b. A brief description of how the data were collected, including an estimate of the reliability of the information secured, under such topics as: the number of questionnaires sent out, how those circularized were selected, the percent of reply, an estimate of the influence of the factor of selection if less than 100 percent replied, and anything else which an honest evaluation of the data should suggest.

c. Presentation of data, including an explanation of what each table deals with, and what it seems to show.

d. Statement of the conclusions based upon the data. This should not be confused with the preceding point. For example, it is one thing to state the fact that 60.7 percent of the cities in the United States do not appoint married women to new teaching positions, and it would be quite another thing to conclude from this fact that most superintendents of schools believe married women are poorer teachers than unmarried. In the first instance we have a fact which cannot be challenged, the latter is a conclusion based on the fact, which may or may not be justified—probably the latter.

e. Summary and conclusions. This should round up the study in a few succinct statements. The ease with which this takes shape is an excellent test of one's clarity of thinking and writing up to this point. A well organized study is easily summarized, even by a stranger to the study. If it is hard for the investigator to tell the conclusion of the study, how can a reader expect to discover it?

The foregoing headings should not be slavishly followed in writing up questionnaire reports. Variations and modifications will frequently be desirable. In a long investigation the foregoing headings may virtually reoccur over and over again as one table after another is presented, evaluated, and interpreted. Just how one organizes a study is less important than that it should be organized.

Inexperienced investigators sometimes present data solely in a series of tabulations. This is inadequate even though the tables are well

[1] See such references as Nos. 1, 10, 14, 23, 24 and 30 in the bibliography.

set up, and have clear and complete titles, exact though brief column headings, and a short cue as to how to read the table.[1] More than this is needed. The investigator presumably has done much thinking on the subject of the inquiry, and should be in the best position to discuss the significance of his data. He should briefly tell what he thinks each table shows, particularly if it seems to indicate a significant trend or practice. Any shortcomings of his figures should be frankly stated, and possible misconceptions by those who may make casual inspections should be guarded against. Such interpretation of each table is desirable even though very briefly done.

Tables should be properly totaled and checked. The various columns of each table should be accurately added and balanced and appropriate medians or averages entered. When frequency distributions [2] are involved, the total of the vertical and horizontal sub-totals should balance. These points may seem obvious, but an inspection of a random sampling of tables will show that some fail to observe them.

The totals of columns, the medians, averages, or other measures of central tendency are the raw material out of which the investigator composes the text of his discussion and interpretation of tables.

The master tabulation should be included. It is usually desirable to present the data from a questionnaire in a series of short tables which bring out the tendencies and trends on one point at a time, but which obscure deviations from general practice, and make it impossible to identify the data of any specific table in relation to particular cities or respondents. This practice is satisfactory, but something in addition is usually desirable, namely, the detailed presentation in a master tabulation of the replies to each item of the questionnaire by individual respondents. Such a tabulation should list in the first column the individual respondents—cities, schools, or individuals—in some logical order, which will make for ease in locating the data from a given place or person. The succeeding columns should be allotted to the various questions of the inquiry, the column heading repeating as fully as practical the wording of the question concerned. The reply of each respondent to each question can then be indicated. Abbreviations of responses, "y" for yes, "n" for no, and other space saving devices should be used. If the questionnaire is long it will be necessary to divide the master tabulation into several sections.

The ease with which a master tabulation takes shape is a good test of one's success in preparing the questionnaire. If the questions have been properly prepared,[3] it will be possible to indicate answers in brief form.[4] If the questionnaire was logically organized in the beginning—questions on the same topics being grouped together, and sub-questions following principal questions—the arrangement of the master tabulation will automatically follow the questionnaire arrangement. This will make for ease in tabulating and checking, and will afford logical dividing points if the questionnaire is so long that the master tabulation must be split into more than one section.

The master tabulation will be of interest to but a small percent of those who consult the study and may, therefore, appropriately be submerged at the end of the report. Its inclusion, however, may be justified on several bases: (1) It has to be made anyway, if the questionnaire is to be properly tabulated, so its inclusion involves only the cost of reproduction, (2) It allows other investigators to identify unusual or pioneering practices and to investigate them more fully, (3) It makes for care in tabulating, since the basis for the various tables in the main body of the report is found in the master tabulation, and if they do not check with it, errors may be discovered and corrected. All respondents are accounted for on each question—whether they reply or not. The reason why some respondents did not reply to certain questions can be hypothecated. (4) It makes for care in reporting. A respondent will hesitate to make careless or inaccurate reports on the items of a questionnaire if it is likely his

---

[1] For an illustration of tables which are relatively complete in themselves, see "Practices Affecting Teacher Personnel." *Research Bulletin of the National Education Association*, Vol. VI, No. 4, September, 1928.

[2] See page 81ff of reference No. 24 in the Bibliography for a description of frequency distributions.

[3] See the section on the preparation of questionnaires, particularly pages 15 and 21.

[4] Essential qualifications of answers may be handled in brief footnotes at the foot of the master tabulation.

sin will return to plague him later in the master tabulation.

Below is illustrated the master tabulation of the questions given on pages 15-6 of this bulletin.

Summaries of the data illustrated in the accompanying master tabulation may be found in Tables *4, 5, 11, 12, 13, 14, 15,* and *16,* of "Practices Affecting Teacher Personnel." *Research Bulletin of the National Education Association,* Vol. VI, No. 4, September, 1928.

If for any reason it appears impossible to include the master tabulation as a part of the report, one should at least give a list of the respondents to the questionnaire and indicate that the complete tabulation is available for inspection by interested investigators.

The questionnaire should be reproduced—There should be appended to each report, just before or just after the master table, a copy of the question blank used in assembling data. In evaluating questionnaire data it is frequently as important to know just how the questions were asked as to know the responses. When an investigator includes both his blank and the master tabulation, all cards are on the table and the readers of his report are in a position to accept or reevaluate the conclusions based on his data.

Summary—This section offers certain practical suggestions regarding the preparation of reports based on questionnaire data. Such reports should be titled and otherwise properly identified, the presentation and interpretation of data should be carefully organized, a master tabulation giving answers of individual respondents to each question should be included, and a copy of the completed questionnaire appended. These characteristics of a good report although obvious are sometimes lacking. Their intelligent observance by investigators would improve many questionnaire studies.

FIGURE III.—ILLUSTRATION OF A MASTER TABULATION

Cities 30,000 to 100,000 in population

Cities	Married women as teachers					Written examinations conducted in connection with:		Sick leave							
		Single women who marry:						Number of days sick leave allowed with:						Is sick leave accumulative	Number of years sick leave may accumulate
	Married women employed as new teachers	Resign at once	Resign at end of year	May continue to teach	No report	Employing new teachers	Promoting employees in service	Full salary	Half salary	Full salary less any substitute pay	Some other fraction of salary	No salary	Total number allowed in one year		
Alabama															
Mobile	No			✓		No	No			30			30	No	—
Montgomery	No			✓		No	No	10					10	No	—
Arkansas															
Little Rock	No			✓		No	no report		20				20	No	—
California															
Berkeley	No			✓		No	No		30				30	No	—
Fresno	No			✓		No	No	10					10	Yes*	4
Long Beach	Yes			✓		No	No	5	15				20	No	—
Pasadena	No				✓	Yes	No	10					10	Yes	[illegible]
Sacramento	No			✓		No*	No	10					10	No	—
San Diego	No			✓		No	no report	10					10	Yes	5
San Jose	No			✓		Yes	No			20			no report	no report	—
Stockton	Yes		✓			No	No	10		30			40	No	—

The Questionnaire Problem From the Viewpoint of the Superintendent of Schools [1]

Individual superintendents of schools have written, and the Department of Superintendence of the National Education Association has resolved, in protest against the number of questionnaires which annually reach the offices of public school systems. This situation impelled the Research Division of the National Education Association to begin in 1927 an investigation of the questionnaire problem particularly as it concerns the offices of superintendents of schools.

Evidence Is Assembled

In order to secure definite evidence as to the size and character of the problem the cooperation of a number of state, city, and county superintendents of schools was enlisted. The school systems asked to cooperate in the study were selected to represent various geographic areas and school systems of different types.

These offices agreed, immediately upon the receipt of a questionnaire, to mail the Research Division a postal-card form [2] giving the name and address of the sender of the inquiry, and its subject and date of issuance. Upon receipt of one of these notices, a personalized form letter was sent to the investigator, asking for a copy of his questionnaire and explaining the purpose of the request. A follow-up letter was sent if a copy of the questionnaire was not received in six weeks. This procedure was continued without essential variation for the school years 1927-28 and 1928-29.

At the close of 1927-28, an inquiry was dispatched to each investigator who had furnished a copy of his question form, asking information as to the number sent out, the number of replies received, and inquiring concerning the tabulation and dissemination of results.[3] Nearly a year later, in March, 1929, another inquiry [4] was sent to all who had supplied copies of their questionnaires seeking information as to use made of the data they had assembled.

The Evidence and What It Shows

The number of questionnaires—Table 1 lists the cooperating school systems and the number of questionnaires reported in each case. After eliminating duplicate cards for the same questionnaire reported by different cities a total of 376 different questionnaires were reported by 14 superintendents of schools in 1927-28. In 1928-29, 364 different questionnaires were reported by a similar number of cooperators.

The average annual number of questionnaires reported by the superintendents' offices of the city school systems in Table 1 is 45. The number received by individual cities varies widely. Five report less than twenty in a year and four report more than seventy-five, the largest report from one city being 137.

Approximately 370 different questionnaires were reported by the 14 cooperating offices in each of the two years. This is less than might have been expected, considering statements frequently made as to the "floods" of questionnaires which annually descend upon the schools. A report from 14 centers, even though randomly distributed geographically, cannot be accepted as a complete showing for the whole country, particularly when nearly all of the cooperating offices are located in large or middle sized cities. It is safe to say, however, that it obtained a substantial portion of the questionnaires of wide distribution, as well as some of those of restricted and local circulation.

---

[1] Special acknowledgment is due to the following school officials who cooperated in this study by reporting questionnaires in circulation: A. F. Harman, then County Supt. of Schools, Montgomery, Ala.; Fred M. Hunter, then Supt. of Schools, Oakland, Calif.; W. E. Morgan, Chief, Division of Research and Statistics, State Dept. of Education, Sacramento, Calif.; J. M. Gwinn, Supt. of Schools, San Francisco, Calif.; C. E. Greene, Director of Research, Denver, Colo.; Roger M. Thompson, Director of Research and Surveys, State Board of Education, Hartford, Conn.; Frank W. Ballou, Supt. of Schools, Washington, D. C.; J. W. Gowans, Supt. of Schools, Hutchinson, Kansas; Clarence G. Cooper, County Supt. of Schools, Towson, Md.; S. Monroe Graves, Supt. of Schools, Wellesley Hills, Mass.; Millard C. Lefler, Supt. of Schools, Lincoln, Neb.; A. L. Hartman, Director of Reference and Research, Montclair, N. J.; W. J. Bickett, Supt. of Schools, Trenton, N. J.; William H. Holmes, Supt. of Schools, Mt. Vernon, N. Y.; R. G. Jones, Supt. of Schools, Cleveland, Ohio; Julius E. Warren, Supt. of Schools, Lakewood, Ohio; E. M. Otis, Supt. of Schools, Willoughby, Ohio; E. C. Broome, Supt. of Schools, Philadelphia, Pa.; J. H. Saunders, Supt. of Schools, Newport News, Va.; and Thomas W. Gosling, then Supt. of Schools, Madison, Wis.

Others not elsewhere acknowledged who have offered helpful suggestions in the preparation of this Bulletin are: Carter Good, Leonard V. Koos, Belmont Farley, and S. D. Shankland.

[2] The form used is reproduced on page 49.

[3] The form used in collecting this information is reproduced on page 50.

[4] Form is reproduced on page 51.

The number of questionnaires reported by individual cities is of interest. One of the co-operating cities reported more than 100 in a year. The average for all cities was 45, or about one a week.

The question should be raised as to whether all questionnaires received by the cooperating superintendents' offices were reported to the Research Division. It is known that a complete report was not received from some. On the other hand, it is believed that in some cities, in which most of the mail passes through the hands of one alert secretary, conditions were favorable for receiving an approximately complete report. The five largest reports for a year average 89 questionnaires per city. It seems reasonable to conclude from the data presented that few offices of superintendents of schools in the United States receive on the average more than two questionnaires a week.

All of the subsequent conclusions of this chapter are dependent upon an analysis of a sampling of the questionnaires which reach the offices of superintendents of schools. It is believed that this sampling is sufficiently random to justify the conclusions which are drawn. In the cases where conclusions may have been significantly affected by non-random selection special notice of this possibility has been taken.

TABLE 1.—NUMBER OF QUESTIONNAIRES REPORTED BY COOPERATING SCHOOL SYSTEMS

Cooperators	Number of questionnaires reported in	
	1927–28	1928–29
1	2	3
State Departments		
California*	30	...
Connecticut	41	17
City School Systems		
Oakland, California*	76	...
San Francisco, California**	...	87
Denver, Colorado**	...	29
Washington, D. C.*	14	...
Hutchinson, Kansas	35	21
Wellesley Hills, Massachusetts**	...	9
Lincoln, Nebraska**	...	38
Montclair, New Jersey	41	27
Trenton, New Jersey	17	48
Mount Vernon, New York	28	16
Cleveland, Ohio	45	63
Lakewood, Ohio**	...	36
Willoughby, Ohio*	4	...
Philadelphia, Pennsylvania**	...	81
Newport News, Virginia	38	36
Madison, Wisconsin*	137	...
County School System		
Montgomery County, Alabama*	3	...
Baltimore County, Maryland*	1	...
Miscellaneous	...	15
Total number reported	510	523
Total number, excluding duplicates	376	364

*Reported in 1927–28 only.
**Reported in 1928–29 only.

Analysis of questionnaires received—A total of 376 different questionnaires were reported by the 14 centers cooperating in 1927-28. It was possible to secure copies of 306 of these. The 70 remaining questionnaire circulators failed to respond to two separate requests asking for copies. Of the 306 received, 39 were eliminated for one of these reasons: (1) an incomplete copy was sent, (2) the inquiry was merely a general request for such material as was available on a given topic, and not a true questionnaire and (3) the request was of the nature of a regular periodic report required by the state department of education. Similar treatment of the 364 questionnaires reported for 1928-29 reduced the number to 265. There were thus available 267 and 265 bona-fide questionnaires for 1927-28 and 1928-29 respectively, or a total of 532, certain features of which could be studied in detail.

Although 740 inquiries were reported by the cooperators in the two years, only 532 could be studied in detail. To what extent did this reduction involve the factor of unfair selection? The reduction was due to two causes, first, the elimination of certain inquiry forms which were not bona-fide questionnaires. Non-random selection did not enter here. Second, a small percent of the originators did not respond to requests for a copy of their blank. It is likely that the failure to respond was due in some cases to the fact that the blanks had been poorly prepared. Some selection probably entered because of this and other factors. Copies of approximately eighty percent of the inquiries reported were obtained. Non-random selection, therefore, could not have been present except to a minor degree.

Who sends questionnaires?—Table 2 summarizes the data as to where questionnaires originate. Of 532 questionnaires which reached the offices of certain superintendents of schools over a two-year period, 27 percent were sent out by a city superintendent of schools or by members of his central office staff, i. e., assistant superintendent, director, or supervisor. An

additional 23 percent were sent out by other employees of school systems, i. e., principals, officers of teachers' organizations, or individuals. Therefore, half the questionnaires were sent out by superintendents or members of their executive or instructional staffs.

Approximately 23 percent were sent from the colleges by professors and graduate students. Private education associations and foundations originated 10 percent. The remainder, about 17 percent, originated from a variety of agencies.

Half the job of regulating the output of questionnaires which reach the offices of superintendents of schools, therefore, must be performed by the superintendent and members of his executive or instructional staffs. Superintendents and their staffs, college professors, and representatives of a few educational associations and foundations by entering into some informal, cooperative plan, such as that suggested on page 38, can control the situation as it affects more than 80 percent of the inquiries which reach the offices of school executives.

The field of the questionnaire—In order to discover the educational fields from which these questionnaires sought information, they were classified under a number of major educational heads. Table 3 summarizes the result, and compares it with the findings of Koos who analysed 143 published questionnaire investigations as to fields dealt with. Both investigations agree that administrative topics account for considerably more than half of those studied. That this is not merely a reflection of the fact that administrative problems account for a large part of all educational research, is indicated by Koos' data in Table 3, which shows that 54 percent of printed questionnaire studies deal with administration, while but 31 percent of published investigations which do not employ the questionnaire method are in the field of school administration.

It seems safe to conclude therefore, that the questionnaire is of especial importance to those interested in educational administration, whether they be research workers or school executives. The abolition of the questionnaire would close one of the important doors through which students of school administration, both theoretical and practical, secure data essential to their purposes.

When are questionnaires sent out?—October to April seems to be the "open season." None of the months during this period of the year seems to have a corner on the supply, according to the data of Table 4. In organizing provisions for handling questionnaires in a superintendent's office, it would seem wise to set up facilities that will be available throughout the school year.

How long are questionnaires?—The number of separate questions asked, or items of information requested, was taken as an indication of the length of questionnaires. According to this measure, questionnaires vary in length

TABLE 2.—WHO SENDS QUESTIONNAIRES TO THE OFFICES OF SUPERINTENDENTS OF SCHOOLS?

Originator of questionnaire	1927–28		1928–29		1927–28 and 1928–29	
	Number sent	Percent	Number sent	Percent	Number sent	Percent
1	2	3	4	5	6	7
City superintendent or member of central office staff	66	24.7	78	29.4	144	27.1
Principal, teacher, or other school employee	62	23.2	60	22.7	122	22.9
College professor or student	61	22.9	61	23.0	122	22.9
Education association or foundation	25	9.4	30	11.3	55	10.3
Publishing firm	17	6.4	8	3.0	25	4.7
State office	10	3.7	9	3.4	19	3.6
United States governmental office	7	2.6	10	3.8	17	3.2
Miscellaneous	19	7.1	9	3.4	28	5.3
Total	267	100.0	265	100.0	532	100.0

Read table thus: Of 267 different questionnaires received by offices of superintendents of schools in 1927–28, 66, or 24.7 percent were sent out by city superintendents of schools or members of central office staff; 62, or 23.2 percent were sent out by principals, teachers, or other school employees, etc. Similarly read data for 1928-29 and for both years combined.

from those which list less than five items to those which include more than 500. Some are half sheets, others are almost volumes. The median number of items requested by the 267 questionnaires of 1927-28 was 17.4. Over sixty percent had 20 items or less. Table 5 gives further data on this point. Most questionnaires seem to be reasonable in their demands insofar as number of items requested is concerned.

An inspection of the individual questionnaires did not suggest that brevity or length should be adopted as an infallible criterion in deciding whether a questionnaire is worthy of answer. Some very short and other very long ones were well prepared and deserved careful answering. On the other hand there were atrocious examples of both long and short questionnaires of the type which deserved to be assigned to the waste basket or returned unanswered accompanied by an appropriate letter.

Form of the questions—It has been urged that time could be conserved through the use of questions which may be answered yes or no, or by the use of check marks. The 267 questionnaires were examined to determine the form

TABLE 3.—THE FIELDS OF EDUCATION IN WHICH QUESTIONNAIRES SEEK INFORMATION

Field	Questionnaires to superintendents in 1927–28 and 1928–29[1]		Published questionnaire investigations analysed by Koos[2]		Published non-questionnaire investigations analysed by Koos [2]	
	Number	Percent	Number	Percent	Number	Percent
1	2	3	4	5	6	7
1. Administration	398	74.8	77	53.9	136	31.1
2. Curriculum	91	17.1	35	24.5	49	11.2
3. Methods of teaching	2	.4	7	4.9	56	12.8
4. Supervision	10	1.9	4	2.8	1	.2
5. Tests and measurements	6	1.1	12	8.4	98	22.3
6. Psychology	...	....	8	5.6	47	10.7
7. Statistics	5	.9	...	....	33	7.5
8. Philosophy	...	....	...	....	4	.9
9. Research	8	1.5	...	....	2	.5
10. Combinations	12	2.3	...	....	12	2.7
Total	532	100.0	143	100.0	438	99.9

Read table thus: Of 532 questionnaires sent to superintendents in 1927–28 and 1928–29, 398, or 74.8 percent sought information concerning administration; 91, or 17.1 percent sought information concerning the curriculum, etc. Similarly read data for columns 4 and 5, and 6 and 7.

[1] The Research Division has available detailed tables on which columns 2 and 3 are based.

[2] Koos, Leonard V. *The Questionnaire in Education*, Macmillan Company, New York, 1928, page 32.

TABLE 4.—MONTH OF ISSUANCE OF QUESTIONNAIRES SENT TO OFFICES OF SUPERINTENDENTS OF SCHOOLS

Month issued	Issued in 1927–28		Issued in 1928–29		Total	
	Number	Percent	Number	Percent	Number	Percent
1	2	3	4	5	6	7
September	8	3.0	26	9.8	34	6.4
October	18	6.7	41	15.4	59	11.1
November	41	15.4	39	14.7	80	15.0
December	38	14.2	22	8.3	60	11.3
January	43	16.1	29	10.9	72	13.5
February	35	13.1	19	7.2	54	10.2
March	39	14.6	37	14.0	76	14.3
April	27	10.1	31	11.7	58	10.9
May	12	4.5	19	7.2	31	5.8
June	6	2.3	2	.8	8	1.5
Total	267	100.0	265	100.0	532	100.0

Read table thus: Of 267 different questionnaires sent to offices of superintendents of schools in 1927–28, 8, or 3 percent were issued in September; 18, or 6.7 percent were issued in October, etc. Similarly read data for 1928–29 and for total.

TABLE 5.—DISTRIBUTION OF 267 QUESTIONNAIRES CIRCULATED IN 1927-28 ACCORDING TO NUMBER OF ITEMS OF INFORMATION REQUESTED

Number of items requested	Number of questionnaires	Percent of total
1	2	3
2–5	38	14.2
6–10	48	18.0
11–15	37	13.9
16–20	38	14.2
21–25	16	6.0
26–30	11	4.1
31–40	25	9.4
41–50	14	5.2
51–60	6	2.2
61–80	8	3.0
81–100	5	1.9
101–200	9	3.4
201–500	8	3.0
More than 500	4	1.5
Total	267	100.0
Median number of items	17.4	

Read table thus: Of 267 different questionnaires sent to superintendents in 1927–28, 38, or 14.2 percent requested information on from 2 to 5 items; 48, or 18 percent requested information on from 6 to 10 items, etc.

of question used. Four types of questions were recognized, according to the form of the response desired, as follows: (1) *Yes-or-no questions,* those calling for a direct categorical answer, (2) *check questions,* giving respondents the opportunity to check or underline one of several answers or symbols of rank value given on the questionnaires, (3) *short-answer questions,* requests for statistical information or short verbal responses, and requests that the respondent enter a number or a letter indicating the rank or weight of various propositions; and (4) *essay questions,* those calling for lengthy verbal responses of descriptive or analytical nature, which could not be subjected to statistical treatment.

It was found that 70.5 percent of the questionnaires consist of combinations of the above types of questions, and that 29.5 percent use some one type of question exclusively. The various types appear with the following frequency: yes-or-no, and short-answer, 34.5 percent; short-answer only, 23.2 percent; yes-or-no, check, and short-answer, 14.2 percent; yes-or-no, short-answer and essay, 7.5 percent; check questions only, 4.1 percent; check and short-answer, 4.1 percent; and other types and combinations, 12.4 percent. Essay questions are included in 15.8 percent of the forms. Only 8.2 percent of the questionnaires are limited to yes-or-no and check questions, but 64.9 percent use them together with other types of questions.

The foregoing data indicate that approximately 85 percent of the inquiries sent to superintendents consist of questions which can be answered with a minimum of writing, as only 15.8 percent include questions which call for extended answers of the essay type. All of the short-answer questions were not as clear cut as they might have been, and some could be criticised from other points of view. It is encouraging to note, however, that comparatively few questionnaire senders are asking questions which call for extended answers of the type which first try the soul of the respondent and later defy efforts at tabulation.

Character of information sought—It has been stated that these types of information may legitimately be collected by questionnaires: (1) Facts known to the person responding, (2) facts readily available from school records, and (3) judgment or opinion. Of the 267 questionnaires of 1927-28, 51.5 percent asked for facts or figures only, 10.6 percent requested judgments and opinions, while 37.9 contained items asking for both.

The chapter of this Bulletin dealing with the characteristics of good questionnaires presents certain material bearing on the character of questions asked. Here it is sufficient to say that questions of fact should be limited to items which are ascertainable with a reasonable expenditure of time and effort. When questions do not meet this criterion they should be left blank. On the other hand, there are questions of fact which some school systems cannot answer which they should be able to answer. For example some systems have no record of their employed personnel on such essential items as training, experience and age. Such information automatically accumulates if new employees are required to fill out a personnel card.[1]

The difficulty with some questionnaire items therefore, is not that they are improper items, but that some school systems do not maintain the records which principles of sound management would justify. It is suggested, therefore, that when a carefully prepared questionnaire from a competent investigator requests items of

[1] See page 274 of "School Records and Reports," *Research Bulletin of the National Education Association*, Vol. V, No. 5.

factual information concerning a school system, which cannot be obtained except by a special investigation, it may be desirable to evaluate one's system of records.[1]

Of the 48.5 percent of questionnaires including some requests for judgment and opinion, a large proportion asked that certain subjective factors be ranked or weighted. This type of questionnaire, whereas effective if carefully prepared, is often especially resented by respondents. To answer properly such a questionnaire frequently not merely takes time but it requires the time of those in the more responsible positions. It cannot be answered by clerical workers. This, as well as other opinion-seeking questionnaires, should be used as little as possible and then only by experts. This whole problem is discussed at greater length in the section dealing with the characteristics of good questionnaires.

Duplication in questionnaires—The amount of duplication in questionnaire circulation generally has been assumed to be large. It has been asserted that tremendous waste results from the fact that the same questions are asked by a number of different questionnaires. To ascertain the amount of duplication, the 267 questionnaires collected in 1927-28 were intensively studied with particular reference to the number of times identical questions occurred in different questionnaires. Questions were classed as identical if they called for identical answers even though somewhat differently worded. The amount of duplication was found to be small. To be sure, 40 of the 267 questionnaires dealt with phases of the salary problem. But the number of times the same salary question was asked by more than one questionnaire was not great. The largest duplication was the request by seven different questionnaires for the minimum and maximum salaries of both elementary and high school teachers. Those dealing with the curriculum similarly revealed few identical questions.

Comparatively little duplication of questions was found on any of the topics. Even when on the same topic, the approach varied and the particular information requested differed.

The results of the tabulation of duplicating questions is shown in Table 6. It shows that 26 questions were found which occurred on three or more questionnaires. Such was the duplication discovered on 267 blanks, with a total of 13,070 questions.

This small amount of actual duplication does not mean that there is no waste in questionnaires. If forty salary questionnaires give a poorer statistical picture of the salary situation in the United States than the one comprehensive study which the National Education Association makes biennially, then it is double waste to send out the forty, from forty different centers, with their limited means of composing, circulating, following up, tabulating, and interpreting these blanks. From this fact it is not concluded that the circulation of questionnaires should be centralized in a few hands. The problem is one which calls for discrimination as to function. To say that there are certain types of inquiries which can be most economically carried on by well-equipped agencies and which ordinarily should be attempted only by such agencies, does not imply that there are no investigations which individuals, and local centers can pursue with profit. Opportunity to circulate questionnaires should not be closed to the individual, but the individual investigator should use discrimination in selecting subjects to be studied by this method.

Factors affecting percent of questionnaires answered—Information was sought from the 267 questionnaire circulators of 1927-28 as to the number of questionnaires sent out and re-

TABLE 6.—NUMBER OF DUPLICATING QUESTIONS IN 267 QUESTIONNAIRES ASKING A TOTAL OF 13,070* QUESTIONS

Number of questions appearing more than twice	Frequency of occurrence
1	2
2	7
2	6
10	5
5	4
7	3
Total..... 26	

* Calculated by multiplying mid-points of intervals (Column 1, Table 5) by number of cases (Column 2, Table 5) and adding.

Read table thus: There were two questions each of which reoccurred in seven questionnaires; two questions each of which reoccurred in six questionnaires, etc.

[1] The Research Bulletin cited in the previous footnote is a helpful source of information on records and reports.

plies received. It was possible to secure a report from 136. The fact that only a little over half of the questionnaire-makers responded may be due to several factors, one of which is probably that some of those who had a poor reply did not wish so to report. The conclusions based on the 136 replies need to be interpreted with this in mind. The succeeding facts about the percent of reply received is probably for a selected group of the better questionnaires.

Table 7, indicates that the typical questionnaire of the 136 received a 69 percent reply. The reply varied somewhat according to the position held by the investigator. As might be expected, superintendents of schools are somewhat more likely to answer inquiries originated by other superintendents than by other persons. However, an examination of the detailed distributions of replies, not given here,[1] shows that the percent of reply received depends more upon other factors than upon the originator. Some questionnaires sent by superintendents received a reply of less than a forty percent, and others a 100 percent reply. The same may be said for those of college professors and other classes of originators.

The month in which a questionnaire is issued also has some influence upon the reply received, according to Table 8. Generally speaking, it appears that the earlier in the school year a questionnaire is issued the more likely it is to receive attention by a superintendent's office. January seems to be the poorest time to cast a questionnaire upon the waters.

Table 9 presents data as to the relation of the length of the questionnaire and the reply received. Generally speaking, the shorter the questionnaire, the better the reply. This relationship is far from invariable, however, for the questionnaires asking for five items or less received a reply all the way from less than 20 percent to 100 percent, while the longest of the 136, a veritable volume asking for over 1800 items, received a reply of 88 percent.

TABLE 7.—PERCENT OF REPLY RECEIVED BY VARIOUS CLASSES OF QUESTIONNAIRE CIRCULATORS

Originator of questionnaire	Number of questionnaires	Median percent of reply
1	2	3
City superintendent or member of central office	42	75.4
School principal or other school employees	23	66.0
College professors or students	29	60.4
Private association or foundation	19	58.0
Publishing firm	8	61.0
State office	6	71.0
Miscellaneous	9	78.5
Total	136	69.0

Read table thus: The median percent of reply to the 42 different questionnaires sent out by city superintendents of schools or members of central office was 75.4 percent; median percent of reply to the 23 different questionnaires sent by school principals or other school employees was 66 percent, etc.

TABLE 8.—PERCENT OF REPLY RECEIVED AS RELATED TO MONTH OF ISSUANCE OF QUESTIONNAIRES

Month of issuance	Number issued	Median percent of reply
1	2	3
September	5	76.0
October	12	74.3
November	22	73.5
December	19	76.0
January	20	59.0
February	15	69.8
March	16	66.0
April	17	64.8
May	10	61.0
Total	136	69.0

Read table thus: The median percent of reply to 5 different questionnaires issued in September was 76 percent; the median percent of reply to the 12 different questionnaires issued in October was 74.3 percent, etc.

TABLE 9.—PERCENT OF REPLY RECEIVED AS RELATED TO LENGTH OF QUESTIONNAIRE

Number of items of information requested	Number of questionnaires	Median percent of reply
1	2	3
5 or less	20	78.5
6–10	16	71.0
11–15	22	71.0
16–20	17	68.5
21–30	15	66.0
31–40	14	61.0
41–50	6	71.0
51–75	10	76.0
75–100	5	66.0
101–500	8	54.3
501–1000	2	....
1800–1900	1	....
Total	136	69.0

Read table thus: The median percent of reply to 20 different questionnaires requesting information on 5 or less items was 78.5 percent; the median percent of reply to the 16 requesting information on from 6 to 10 items was 71 percent, etc.

[1] These tabulations are on file in the Research Division.

TABLE 10.—USES MADE OF 171 QUESTIONNAIRE STUDIES BEGUN DURING 1927-28 AND COMPLETED BY MARCH, 1929

Status of investigator	Report on local school problem		Report on state school problem		Report for state or national organization		Graduate thesis		College paper, not a thesis		Speech or lecture		Magazine article		Book		Advertising		Other uses		Total number of uses		Total number of questionnaires
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent[1]	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
City superintendent or member of central staff	28	66.7	4	9.5	4	9.5	2	4.8	4	9.5	4	9.5	4	9.5	.....	.....	.....	.....	5	11.9	55	131.0	42
School principal, teacher or other employee	22	51.2	1	2.3	4	9.3	4	9.3	4	9.3	5	11.6	6	14.0	.....	.....	1	2.3	3	7.0	50	116.3	43
College student or professor	3	7.1	6	14.3	2	4.8	18	42.9	8	19.0	6	14.3	10	23.8	1	2.4	.....	.....	3	7.1	57	135.7	42
Education association or foundation	3	17.6	.....	.....	11	64.7	.....	.....	.....	.....	3	17.6	6	35.3	.....	.....	2	11.8	3	17.6	28	164.7	17
Publishing firm	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	55.6	2	22.2	3	33.3	.....	.....	10	111.1	9
State office	.....	.....	3	60.0	3	60.0	.....	.....	.....	.....	1	20.0	1	20.0	.....	.....	.....	.....	1	20.0	9	180.0	5
Miscellaneous	3	23.1	1	7.7	1	7.7	2	15.4	3	23.1	3	23.1	1	7.7	.....	.....	.....	.....	1	7.7	15	115.4	13
Total	59	34.5	15	8.8	25	14.6	26	15.2	19	11.1	22	12.9	33	19.3	3	1.8	6	3.5	16	9.4	224	131.0	171

[1] The totals of the percents in this column are something over 100 since the results of some questionnaires were used for more than one purpose.

Read table thus: Of 42 different questionnaires issued by city superintendents or members of central staff, 28, or 66.7 percent were used in connection with reports on local school problems; 4, or 9.5 percent were used in connection with reports on state school problems, etc. These 42 questionnaires were used for a total of 55 purposes, that is the results of some of these questionnaires were used for more than one purpose. Similarly read data for questionnaires issued by other investigators.

The reply received is also affected slightly by the character of information requested. The 71 questionnaires asking for objective data only, received a median reply of 74 percent, the 51 asking for both objective and subjective data received a 65 percent reply, and the 14 asking wholly for subjective material received a 61 percent reply.

Availability of questionnaire results—In March, 1929, information was sought as to the availability and use made of the tabulations and conclusions based on the 267 questionnaires of 1927-28. Information on these points was obtained for 203 of the 267. The studies from these 203 questionnaires were in the following conditions:

16	or 7.9	percent—not tabulated or used
16	or 7.9	percent—tabulation still in progress
18	or 8.9	percent—in long hand only
56	or 27.6	percent—typewritten
47	or 23.1	percent—mimeographed
50	or 24.6	percent—printed or to be printed
203	100.0	percent

The foregoing tabulation shows that a year after most of the 203 questionnaires had been sent out, only 97 or less than half of them had been put in mimeographed or printed form so that the results could be generally circulated. It also appears that at least 16, and possibly 32 of the 203 were not to be tabulated. It also is likely that little progress in tabulating had been made by many of the 64 of the 267 who would not report on this matter.

This evidence seems to indicate that at least half of the questionnaires which reach the offices of superintendents are not put in such form that they may be circulated among respondents or other interested people.

Uses made of questionnaire studies—The 267 questionaires of 1927-28 were studied as to what use was made of their results. No report could be obtained on this point for 64 of the 267. The presumption is that many of these 64 were not put to any significant use. Facts were obtained on the remaining 203 of the 267. Sixteen of the investigators stated that the replies to their questionnaire had not been tabulated and that no use had been made of them and 16 others reported that nothing had been completed by March, 1929. One hundred and seventy-one studies had been completed and used in various ways, as shown in Table 10. In several cases a questionnaire was used for more than one purpose, consequently the reported number of uses exceeds the total number of questionnaires. Of the 171 completed studies, 34.5 percent were used in connection with local school problems; 8.8 percent were used in working on a problem of a state school system; 14.6 percent were used in reports of state or national organizations; 15.2 percent contributed toward the preparation of graduate theses; 11.1 percent for other papers and reports connected with college work; 12.9 percent were used in speeches; 19.3 percent were used in magazine articles; 1.8 percent were used in books; 3.5 percent were used in advertising; and 9.4 percent were used for other purposes.

It is evident that no use is made of the results of some of the questionnaires which reach the superintendent's office. Effort expended in answering such inquiries is wasted. The use made of certain other inquiries is narrow—benefiting none but the sender of the inquiry. On the other hand a substantial portion of the blanks contribute to a variety of valuable outcomes. The use mentioned most frequently is that of preparing reports on local school problems. Forty-three percent of the 203 questionnaires contributed to the solution of state and local school problems.

It has been stated that the majority of questionnaires collect data for college theses or term papers. The facts do not support this belief. It was found that 15 percent of the 171 questionnaires were used in theses and 11 percent in other college work. Some of this 26 percent were also used for other purposes.

Some of the inquiries were issued by school officials who deplored the necessity of using a questionnaire, but who felt that the need for information was imperative. Further collection and distribution of information on school practice by state and national agencies would reduce the number of such questionnaires.

The fact that 22 of the questionnaires were used in speeches and 33 in magazine articles does not mean that they were used for those purposes alone. In the majority of cases, questionnaires used in lectures or articles were also used in connection with local problems or as

thesis material. The lectures and articles appear to be by-products of studies made for other reasons. In a few cases, however, the only use made of the questionnaire data was in a speech or article.

Of the various uses made of questionnaires, some will seem more worthy than others to respondents. The investigator who sends with his questionnaire a statement of his reasons for making the study will give the respondent a basis on which to decide whether or not it is one which he wishes to support, and will improve the percent of return from those in sympathy with the project.

Summary and conclusions—This section reports and interprets the results of evidence assembled in studying the size and character of the questionnaire problem as it affects the offices of superintendents of schools. Over a period of two years several hundred different questionnaires received by the offices of superintendents were collected, analysed, and followed up. A smaller number of questionnaires was discovered than was expected. Fourteen offices reported approximately 370 different questionnaires in each of two years. Only one cooperating city reported more than 100 in a year. The average per city was 45, or about one a week. It appears that few offices of superintendents of schools receive more than two questionnaires a week. Half of those which reach school offices are sent out by superintendents of schools or members of their executive or instructional staffs. Considerably more than half deal with administrative topics.

October to April is the "open season" for questionnaires. A majority of them are relatively short, requesting less than 20 items of information, most of which can be supplied by a brief, objective answer. The amount of duplication was found to be small. In 267 different questionnaires, asking a total of 13,070 questions, 26 questions calling for identical answers, occurred on three or more different blanks.

A reply of 69 percent was received by 136 circulators of questionnaires, reporting on this point, who probably constitute a somewhat selected group. A somewhat higher percent of replies was usually received on those orginating from official sources, issued early in the school year, and which were short.

Less than half of those who send questionnaires to offices of superintendents of schools put the results received in such form that they can be generally circulated to respondents. Such reports as could be obtained as to use made of questionnaires, indicate that 43 percent are employed in the solution of state or local problems of school administration. Approximately 25 percent are used in the preparation of graduate theses or similar college work. The results from many questionnaires are used for several valuable purposes. No use is made of the results obtained by a considerable percent.

The data presented seem to indicate that the seriousness of the problem of answering questionnaires has been somewhat exaggerated. This is not to be wondered at. When one is weighed down with pressing administrative duties even a few poorly conceived questionnaires are apt to disturb one's equanimity. Even though the number of questionaires is somewhat smaller than has sometimes been stated, it is not implied that the burden of dealing with these inquiries is of little weight. Rather, it is of sufficient consequence to suggest that particular provision be made for this purpose. Such provision should be carefully planned along the lines suggested in a subsequent section. Even a minimum amount of professional and clerical service can accomplish much in dealing with questionnaires if it is well directed. If this is done most of the waste which now enters into the questionnaire method of investigation, and there undoubtedly is considerable, can be eliminated.

It is realized that many superintendents' offices are inadequately supplied with clerical help. One of the best ways of securing such help is to convince school boards and communities that such help is essential to the businesslike operation of a school office, and to employ it for significant purposes when it is granted. The prompt and accurate answering of worthy questionnaires should be provided for by all properly equipped offices. Some provision for discharging this obligation even though it may be small, is eminently justified in the light of evidence presented elsewhere in

this Bulletin. A general failure to provide for the efficient discharge of this duty, would cut off at the source one of the springs from which is drawn the factual information essential to efficient school administration. No single group of school people should be more directly interested in preventing such a calamity than those engaged in school superintendence.

A Proposed Plan For the Cooperative Regulation of Questionnaires

It was stated in an earlier section that the solution of the questionnaire problem lies not in abolition but in proper regulation through voluntary, cooperative action on the part of those who send and receive questionnaires. The purpose of this chapter is to suggest a plan through which such action may effectively function.

As was pointed out above, over 80 percent of the questionnaires studied in this investigation were originated by superintendents of schools and their staffs, college professors, or representatives of a few educational associations or foundations. These three groups have it within their power to correct the undesirable features of the questionnaire method of investigation. This may be done by working along the following lines.

Need of a policy and office plan for handling incoming questionnaires—An office routine for handling questionnaires will save much time. Such a plan is needed in the central offices of school systems and in other offices which receive questionnaires. Just what the details of this plan are is less important than that there should be one. Many offices otherwise well organized show little efficiency in this regard.

An effective plan for dealing with incoming questionnaires will usually require that one person be made responsible for deciding as to which ones are to be answered, for securing the information requested when the decision is to answer, for returning them to the sender, and for keeping a copy of data supplied.

In a small school system the superintendent working through a clerk or other assistant will necessarily exercise these functions. In a larger organization, this responsibility could appropriately be delegated to the director of research or some other properly qualified person.

The definite fixing of responsibility for dealing with questionnaires should not mean it should become a one man affair. Rather it should mean that some one is made responsible for coordinating and conserving such energy as is available for this purpose. When this is not done waste is likely to result. In one instance, where the route of a questionnaire through the offices of a superintendent's staff was traced, it was found that no less than five different offices and eight different people had spent some time on the questionnaire, and had in each case cleverly "passed the buck" on to the next person. Although in toto more than enough time to answer the questionnaire had been consumed, it still was only partly done. Even more startling was the unanimous decision on the part of the various people who had a try at answering it, when they were called together on the matter, that the questionnaire was not worth answering. Poor administration is a soft term for such a situation. A better way is to make some one person responsible for shepherding all questionnaires, and to give him proper guidance in the form of a brief statement of the policy of the particular organization as it concerns answering questionnaires, and to see that responsible members of the staff understand the policy.

When this is done the answering of questionnaires becomes a recognized function with a dignified status whereby the agency concerned makes some contribution to the building up of educational knowledge, and in return receives dividends of information helpful in shaping educational policies and procedures. The professional and clerical service alloted to this task may be relatively small, but the allotment should be definite and should enjoy a recognized status. To allow this duty to remain everybody's job is likely to result in the consumption of much effort with little benefit to anyone.

The person made responsible for dealing with questionnaires will need to set up a plan for deciding which ones are worthy of answer. He will need to have in mind certain criteria in reaching prompt and proper decisions on

this point. A rough rating plan similar to that given on the next page should be useful. The questions of this plan may be briefly applied as indicated below, proper modifications being made to meet the particular situation.

1. *Is the questionnaire adequately sponsored?*—This question is discussed on page 14 of this bulletin. In general questionnaires from responsible agencies such as those cited on page 14 should take precedence over those sent out by individuals or by agencies of no particular standing. There is a greater likelihood that the questionnaire has been well prepared if it comes from a well organized office, and a better chance that replies will eventuate in something useful to the respondent.

2. *Is the purpose of the study frankly stated, and is it one which calls for a reply under the policy set up for dealing with questionnaires?* —This subject is discussed on page 23 of this Bulletin. One should be generous in applying this criterion.

Questionnaires which assemble data to be used in writing graduate theses, and particularly those which collect data for "term papers" have been generally condemned. The objection to the term paper questionnaire is based on good grounds. It is an imposition to ask busy people to take time to reply to the ordinary "half-baked" questionnaire sent out for this purpose. Such questionnaires usually promise benefit to no one but the sender and frequently not even to him.

No such general interdict is justifiable in regard to graduate theses. If the questionnaire meets the criterion of the rating plan it should be answered. It is doubtless a fact that this route to the Ph. D. has been overworked

FIGURE IV

An Informal Rating Plan For Questionnaires

If after inspecting a questionnaire, one may answer yes to each of the following questions, it should be answered. If no is the answer to several of the questions the questionnaire should be promptly returned to the sender unanswered. For further elucidation of these criteria see discussion above.

1. Is the questionnaire adequately sponsored?_____ Yes—— No——
2. Is the purpose of the study frankly stated, and is it one which calls for a reply under the policy set up for dealing with questionnaires? _____ Yes—— No——
3. Is the questionnaire on a worthy educational topic?_____ Yes—— No——
4. Is the questionnaire well organized?_____ Yes—— No——
5. Are the questions clearly and briefly worded?_____ Yes—— No——
6. Can most of the questions be briefly answered with a check mark or by a fact or figure, and is the number of questions requiring extensive subjective replies kept to a minimum?__ Yes—— No——
7. Is the information requested not available elsewhere, and obtainable only through questionnaire?_____ Yes—— No——
8. Is the questionnaire set up in proper mechanical form?____ Yes—— No——
9. Are the demands of the questionnaire reasonable?_____ Yes—— No——
10. Is a summary of results or other proper return promised respondents? _____ Yes—— No——

and that some questionnaires sent out in connection with graduate theses have been poorly conceived and poorly prepared. On the other hand some valuable studies have come from this source. Schools of education are recognizing the need of regulating this phase of the questionnaire problem along the line of the suggestions made on page 41. When this is done the justification of a general interdict against the collection of data for use in advanced dissertations largely disappears.

3. *Is the questionnaire on a worthy educational topic?*—This criterion is discussed at length on page 14. If a summary of the results of the questionnaire would be valuable to the respondent, or to persons other than the sender, a reply is justified. One should be generous in applying this criterion, particularly if the questionnaire fully meets the other nine criteria.

4. *Is the questionnaire well organized?*—For a detailed discussion of this point see pages 15-6 and 20-2. If a questionnaire is well organized the fact is usually evident at a glance. The major and sub-items are logically related and other indications of careful planning are evident.

5. *Are the questions clearly and briefly worded?*—The length of questions will necessarily differ with the nature of the subject being studied. Pages 15-6 and 19-22 of this Bulletin will be suggestive in applying this criterion.

6. *Can most of the questions be briefly answered?*—Insofar as possible, questions should be answerable with a check mark or by a fact or a figure, and the number of questions requiring extensive, subjective replies should be kept to a minimum. The reasons for this criterion are given on pages 18-21 and 36 of this Bulletin.

7. *Is the information requested unavailable?*—Is it obtainable only through questionnaire? The justification of this criterion is self-evident. It is discussed further on page 16.

8. *Is it set up in proper mechanical form?*—The items which together constitute good mechanical arrangement are discussed on page 22. Among the more important of these are neatness, easy legibility, sufficient space for answers, and proper identification.

9. *Are the demands reasonable?*—This question needs to be answered both with the importance of the investigation and the respondent's facilities for answering in mind. More specific discussion of this point will be found on pages 18-20.

10. *Is a proper return promised respondents?*—Questionnaires which benefit no one but the sender can seldom be justified. This point is further elucidated on page 17.

It is not suggested that a long and tiresome application of these criteria be made. It is enough to have them in mind, or to have page 39 of this bulletin open before one as he makes the decision "thumbs up" or "thumbs down" on a questionnaire.

If yes can be answered to all or to most of the foregoing questions as a result of a brief inspection of a questionnaire, then it deserves further attention. If any considerable number of the criteria have to be answered with a no, then the questionnaire should be promptly returned to the sender unanswered.

The application of this rating plan need not be a one man performance. The one responsible for handling questionnaires in doubtful cases, should consult well-informed associates. For example, the advice of the school accountant should be enlisted in deciding what questionnaires on school costs should be answered.

In the case where it is decided that a questionnaire is not to be answered, it should be returned to the sender, along with a brief letter. It would be well to give the reason why the questionnaire was not answered. If this were generally done, rather than merely throwing unanswered blanks in the waste basket, the effect would be beneficial all around.

When the decision is to answer, necessary data should be assembled from the best source the organization affords. One person should not attempt to supply answers to all questions. Rather he should be responsible for securing the data from the proper source or sources. Most of the information asked by properly prepared inquiries can be supplied by clerks. When one person in an organization is responsible, the load can be properly distributed, and a maximum result secured for a minimum of time and energy consumed.

A copy of the data supplied in response to questionnaires should be kept on file. This is

desirable in case a question later arises as to just what information was furnished. Also the data assembled in replying to a questionnaire may later be needed for local use.

The foregoing paragraphs apply equally to all agencies which receive any considerable number of questionnaires, whether it be the offices of a superintendent of schools and his administrative and supervisory staff, a school of education, or other agency. Just how the foregoing proposals can be applied in any particular situation will depend on circumstances.

The policy and office plan for dealing with questionnaires must be determined by each agency for itself. Merely to storm at questionnaires is not to solve the problem they involve. Thoughtful determination of policy, and efficient execution of the same is needed in dealing with questionnaires as in discharging other duties.

Need of a policy in sending out questionnaires—The need for a policy and plan for dealing with incoming inquiries is matched by a similar need in sending them out. The material in the sections of this bulletin beginning on pages 14 and 18 are particularly pertinent to all agencies which send out questionnaires. Too often questionnaires, both as to subjects covered and numbers dispatched, are outgrowths of individual whims or evanscent needs rather than fulfillments of well-rounded policies in collecting information. This applies in some measure to school systems, schools of education, educational organizations, and other agencies which assemble educational data.

In arriving at a policy and plan in sending out questionnaires, agencies such as these enumerated might well take these steps:

1. Once a year the whole matter should be a subject of discussion at a staff conference. The result will frequently be a plan which will involve the sending out of fewer and better questionnaires. As a basis for discussion there should be presented at this conference, a survey of the number, character, and outcome of those sent out by the organization during the previous year.

2. Some simple machinery should be set up to guarantee:

   a. That all questionnaires are well prepared and meet criteria such as those in the chapter on Better Preparation of Questionnaires.

   b. That too many questionnaires are not sent out, and particularly that unnecessary questions are avoided.

   c. That a permanent, continuing file of all questionnaires sent out is kept in one place.

Just how the foregoing will be worked out by any particular agency will depend upon circumstances. In some cases the whole arrangement for regulating the outgo from a school system, school of education, or educational association should be on the informal, voluntary basis. In other cases it may need to be a rather definite scheme closely administered by the chief executive, or a member of his staff to which this responsibility is delegated.

The chapter on Better Preparation of Questionnaires offers a number of suggestions which may well be consulted. Material on page 14 is particularly pertinent to school systems.

Questionnaires by college students—It is the practice of some departments of education to encourage students to send out questionnaires in connection with graduate theses and even in the preparation of term papers. Figures presented elsewhere show that such inquiries constitute but a minor fraction of those which reach superintendents' offices. But this small number has probably aroused more antagonism than all other questionnaires taken together. Evidence in the files of the Research Division shows that many questionnaires sent out by students are poorly conceived and miserably prepared. Furthermore, experience shows that even when the results obtained are actually summarized, it is often difficult to get a copy of this summary. The facilities which these students have are frequently inadequate either to the proper preparation of forms or the handling of replies.

This situation suggests that it would be a wise step if responsible colleges and universities would make it the rule that all questionnaires be sent out by members of the faculty, even though some of the data assembled is used in

theses.[1] This practice would have two advantages. It would guarantee adequate supervision. A faculty member would hesitate to have his name and official position attached to poorly conceived and poorly executed questionnaires. Second, it would eliminate the peculiar irritation that many school people feel in being "asked by some unknown upstart to write his dissertation."

Probably the principal reason why questionnaires from graduate students in some universities have not been up to standard is the unreasonable number of studies assigned to faculty members for supervision. In some institutions, the first step in guaranteeing adequate guidance of graduate students should be a reduction in the number of investigations assigned to the individual professor for supervision.

Some institutions are finding it wise to provide graduate students with specialized services of both a professional and clerical nature. A person expert in the editing of manuscripts could greatly improve the clarity and vigor of the prose in many dissertations. Students work more effectively if they may obtain expert help in making tabulations and calculations at a reasonable cost. When such facilities are provided, the student not only works more effectively but there is also a partial lifting of the burden of supervision expected of the responsible faculty member. This leaves him free to concentrate his guidance upon the broader aspects of the student's investigation.

In making the foregoing suggestions, it is not implied that the circulation of questionnaires in school systems by college people is a one-sided question. It was fully recognized in an earlier section that an important part of the knowledge now available for the guidance of school people has come from questionnaires in the hands of competent investigators, who have usually been members of college faculties. It is also recognized that practical school workers, superintendents, supervisors, and teachers constantly call upon the colleges for service of various kinds. It is little wonder that the college professor who donates a considerable portion of his time and energy in furnishing information and guidance to school systems, resents their failure to reply to his well-prepared questionnaire.

The recognition of these facts, however, does not call for a modification of the contention that all agencies which send out questionnaires, colleges as well as others, may with benefit review their whole policy in this regard so that it may be well conceived, and so that practices which discredit this method of inquiry may be avoided.

This section has outlined certain lines of voluntary, cooperative action which if followed by the various agencies which send out and receive educational questionnaires, will eliminate many of the abuses which have brought this legitimate method of investigation into disrepute. The next paragraphs offer an additional facility aimed at the same result.

A clearing house for questionnaires—In the two years that the Research Division has been studying the problem it has virtually become a clearing house for educational questionnaires.

It is proposed that the Division undertake to continue this function on a permanent basis. In order to accomplish this result it would be necessary to have cooperation along these lines:

1. Those who send out educational questionnaires should send three complete copies of their form and letter of transmittal to the Research Division of the National Education Association, 1201 16th St., N. W., Washington, D. C.
2. When the results of the study or reports based on the questionnaire are completed copies should be sent to the Research Division.
3. When it is not practical to furnish a copy of the report, then notice should be sent to the Research Division as to where the results of the questionnaire are available.

The questionnaires and reports so received will be properly classified, cross indexed, and filed.

It would then be possible for the Division to organize a "Questionnaire Service" along these lines:

1. Investigators contemplating the circulation of a questionnaire could be loaned copies of inquiries previously sent out on that topic.
2. Investigators could be furnished a bibliography of completed studies on the topic.

[1] In reviewing the manuscript of this Bulletin, Professor Leonard V. Koos asks this question: "Would it not be better to recommend faculty authorization of questionnaires emanating from students in graduate departments of education rather than urging that the questionnaires be sent out by the faculty itself?" This alternative would be acceptable providing an individual member of the faculty as well as the faculty as a whole authorizes the questionnaire. The important principle is that some competent person and organization should feel responsible. Any means which gets this result is acceptable.

3. The results of questionnaire investigation could be put into wider use, by annually issuing a summary of the results of "Questionnaire Studies" for general circulation, and by citing these studies in answering inquiries for information.

In developing the "Questionnaire Service" the Research Division:

1. Will not be able to assist investigators in drafting questionnaires, to criticize those drafted, nor to aid in the revision of questionnaires proposed for circulation. These are functions which can be best exercised by the agency sponsoring the questionnaire.
2. Will not be able to sponsor nor circulate questionnaires for investigators. The Division already is called upon by the various Committees and Departments of the National Education Association to circulate all the questionnaires it can wisely handle. Requests that the Division sponsor or circulate questionnaires which do not have to do with official projects of the National Education Association cannot be granted.

By entering into an informal, voluntary plan for regulating educational questionnaires along the lines suggested above, school systems, schools of education, and education associations could remove most of the evils and preserve the good results which come from circulation of these inquiries.

Summary—This chapter proposes an informal, voluntary plan for the regulation of questionnaires in education. It is suggested that all agencies which receive questionnaires develop a policy and office plan for quickly identifying those worthy of attention and for economically providing the information they request. Practical means of accomplishing these ends are outlined.

It is also proposed that agencies sending out questionnaires develop unified policies which will result in the reduction of the number of inquiries sent out and which will guarantee that those dispatched are well prepared. Certain definite suggestions for the attainment of these results are offered.

A proposal is also made to organize a "Questionnaire Service," for the benefit of those who conduct or use the results of questionnaire investigations.

Some Sources of Information

In a previous section of this Bulletin, it was urged that the decision to issue a questionnaire be reached only after a thorough canvass has been made of information already available. Duplication and waste of effort may thereby be avoided. This section calls attention to certain, although not all, of the sources of information which may be utilized by the investigator in making such a canvass.

1. *The Office of Education of the United States Department of the Interior* [1]—(Formerly the Bureau of Education). This governmental agency is one of the principal storehouses of educational information. A letter addressed to The Commissioner of Education, Office of Education, United States Department of the Interior, Washington, D. C., will usually bring pertinent material in bibliographic or other form on any educational question. The annual bibliography of research studies in education [2] first issued in 1926-27 promises in time to furnish a complete and prompt round-up of educational investigations both in progress and completed. The regular record of current educational publications [3] gives classified and annotated references to certain educational periodicals and other publications. The annual *Educational Directory* should be familiar to all who have to do with questionnaires.[4] These are but a few of many resources [5] which the Office of Education has for aiding the investigator.

2. *The National Education Association*—This professional organization has rapidly developed its facilities in recent years and through its headquarters library, its Research Division which issues the *Research Bulletin*, its Division of Publications which issues the *Journal* and the annual volume of *Addresses and Proceedings*, and its various other divisions, is able either to furnish or to suggest sources of information which may exist on most educational topics. The periodic round-up of city school research studies, completed and in progress,[6] the annual summary of educational legislation,[7] its questionnaire service and other similar resources might appropriately be consulted early by most investigators. It regularly compiles unique information in several fields among which are curriculum reconstruction, the work of the principal, state educational legislation, teacher salaries and retirement systems. Address the Association at 1201 16th St., Washington, D. C.

3. *The Education Index*—This publication may be consulted in well-equipped educational libraries. It was begun in 1929, replacing the Loyola Educational Index, which covered 1928. It indexes more than a hundred educational periodicals and list books and material in pamphlet form. The expansion of the coverage of this publication and the cumulative value of its issues will rapidly provide an indispensable tool for educational research workers. (H. W. Wilson Co., 958 University Ave., New York City.)

4. *Readers' Guide to Periodical Literature*—Indexes, among other magazines, ten well-known educational magazines, the bulletins of the United States Office of Education, and the Proceedings of the National Education Association. Available at libraries. Published monthly; began in 1900. (H. W. Wilson Co., 958 University Ave., New York City.)

5. *International Index to Periodicals*—(Formerly the Readers' Guide Supplement) Indexed through 1928 nearly a score of the technical and specialized educational magazines, and a small number of the foreign periodicals emphasizing education. Published five times yearly; began in 1907. The educational magazines were transferred to the Education Index on January 1, 1929. (H. W. Wilson Co., 958 University Ave., New York City.)

---

[1] "United States Office of Education." *Journal of the National Education Association* 18: 241; November, 1929.

[2] United States Department of the Interior, Bureau of Education. *Bibliography of Research Studies in Education, 1926-27.* Bulletin No. 22, 1928. Government Printing Office, Washington, D. C. 162 p.

[3] United States Department of the Interior, Bureau of Education. *Record of Current Educational Publications.* Bulletin No. 23, 1928. Government Printing Office, Washington, D. C. 116 p.

[4] United States Department of the Interior, Bureau of Education Bulletin (1929) No. 1. *Educational Directory: 1929.*

[5] For example, see: Windes, E. E., and Greenleaf, W. J. *Bibliography of Secondary Education Research, 1920–1925.* United States Department of the Interior, Bureau of Education, Bulletin No. 2, 1926. Washington, D. C. 95 p.

[6] National Education Association, Educational Research Service. *City School Research Studies Completed and in Progress.* April, 1929. Circular No. 5, 1929. Washington, D. C. 16 p.

[7] National Education Association, Research Division. *State School Legislation, 1929.* Washington, D. C. Mimeographed. 57 p., 25c.

6. *The United States Catalog: Books in Print January 1, 1928*—Supplemented by monthly issues of the Cumulative Book Index. An index, by author, title, and subject, of all books in print in the United States; includes many pamphlets and local governmental reports. Available at libraries. (H. W. Wilson Co., 958 University Ave., New York City.)

7. *Psychological Index*—Annual bibliography of the literature of psychology and cognate subjects in the United States and abroad. Most recent volume issued June, 1929, contains 408 pages. (Psychological Review Co., Princeton, N. J.)

8. *The Loyola Educational Digest*—Consists of digests of articles and bulletins, issued in card form, adapted for library filing. Published monthly, except in July and August; began in 1924. (Loyola Educational Digest, 3441 North Ashland Ave., Chicago, Ill.)

9. *Titles of Masters' and Doctors' Theses in Education Accepted by Colleges and Universities in the United States*—A series of reports begun in 1917. Issued biennially; latest number covers the period ending October 15, 1927. (College of Education, University of Illinois, Urbana, Ill.)

10. *Ten Years of Educational Research, 1918-1927*—A bibliography of nearly 3,700 reports of educational research, including periodical references, reports, and doctors' theses. Compiled by Walter S. Monroe and others, published in 1928 by the University of Illinois, Urbana, Ill. This is illustrative of the type of valuable reference material of occasional issuance by various educational agencies which a search will reveal.

11. *Educational Research: Suggestions and Sources of Data with Specific Reference to Administration*—A 77-page pamphlet by Carter Alexander, published in 1929 by the Bureau of Publications of Teachers College, Columbia University, New York City. Calls attention to bibliographies and other sources of information on some 300 individual items, alphabetically arranged.

12. *Teachers Journal and Abstract*—Each number contains from sixty to eighty signed abstracts of articles in educational magazines of the previous month. A consistent plan of classification is followed. Published monthly, except July and August, by Colorado State Teachers College, Greeley, Colo.

13. *Continuing Studies*—In a few major fields of the school curriculum a definite plan of summarizing research has been developed. Investigators in the subject fields mentioned below will do well to consult the following sources of information before undertaking new studies.

a. Arithmetic. Investigations in the field of arithmetic are summarized annually by Guy T. Buswell and published in the Elementary School Journal. These annual studies supplement a monograph published in 1925, and taken together present a complete survey of research in arithmetic. The first and the most recent compilations follow:

BUSWELL, GUY THOMAS, and JUDD, CHARLES HUBBARD. *Summary of Educational Investigations Relating to Arithmetic.* Supplementary Educational Monographs, No. 30. University of Chicago Press, Chicago, Ill. 1926. 212 p.

BUSWELL, GUY THOMAS. "Summary of Arithmetic Investigations (1928) I-II." *Elementary School Journal* 29: 691-8, 737-47; May-June, 1929.

b. Grammar, Language, and Composition. A bibliography of 264 selected titles has been classified and reviewed by R. L. Lyman in the following monograph, which will doubtless be followed by annual supplements:

LYMAN, R. L. *Summary of Investigations Relating to Grammar, Language, and Composition.* Supplementary Educational Monographs, No. 36. University of Chicago Press, 1929. 302 p.

c. Reading. An annual summary of reading investigations is published by William Scott Gray in the Elementary School Journal. These reports are supplementary to an exhaustive monograph issued in 1925, and titled as follows:

GRAY, WILLIAM SCOTT. *Summary of Investigations Relating to Reading.* Supplementary Educational Monographs, No. 28. University of Chicago Press, Chicago, Ill. 1925. 275 p.

The most recent survey, containing 101 titles, is listed below:

GRAY, WILLIAM SCOTT. *"Summary of Reading Investigations* (July 1, 1927 to June 30, 1928) I-II." *Elementary School Journal* 29: 443-57, 496-509; April, March, 1929.

d. Science. Digests of 70 learning and cur-

ricular studies in science published prior to 1925 have been brought together by Curtis in the following book, which is to be brought up to date in future volumes:

CURTIS, FRANCIS DAY. *Digest of Investigations in the Teaching of Science in the Elementary and Secondary Schools.* P. Blakiston's Sons and Co., Philadelphia, Pa., 1926. 341 p.

e. Secondary-school administration. The Department of Secondary-School Principals of the National Education Association publishes from time to time digests of outstanding research studies in that field. Their latest compilation is the following:

REAVIS, WILLIAM C. and BUTSCH, RUSSELL L. S., "Abstracts of Unpublished Masters' Theses in the Field of Secondary-School Administration." *Bulletin of the Department of Secondary School Principals of the National Education Association,* Bulletin, No. 24, January, 1929, Cicero, Ill. 202 p.

f. Social sciences. Abstracts of studies in the social sciences were presented by Earle U. Rugg in the *Third, Fifth,* and *Sixth Yearbooks* of the Department of Superintendence of the National Education. The latest compilation is presented in the following volume:

RUGG, EARLE UNDERWOOD, *Curriculum Studies in the Social Sciences and Citizenship,* Colorado Teachers College Education Series, No. 3, Colorado State Teachers College, Greeley, Colorado, 1928. 214 p.

14. *American Council on Education*—This agency is able to provide information relating to higher education. Below are examples of the type of information which the Council makes available. Its headquarters are at 26 Jackson Place, Washington, D. C.

ROBERTSON, DAVID A. *American Universities and Colleges.* Published for the American Council on Education, by Charles Scribner's Sons, New York. 1928. 884 p.

15. *Professional Organizations*—Many educational associations in the United States sponsor research. A list of all educational associations is published each year in the Educational Directory of the U. S. Office of Education. The most recent issue of the directory appeared in May, 1929. It may be obtained only through purchase (30 cents a copy) from the Superintendent of Documents, Government Printing Office, Washington, D. C.

The following associations are typical, as sources of data on subjects frequently covered by questionnaires:

International Kindergarten Union, 1201 16th Street, N. W., Washington, D. C.

National Society for the Prevention of Blindness, 370 Seventh Avenue, New York City.

American Child Health Association, 370 Fifth Avenue, New York City.

16. *National Surveys*—Studies which attempt broadly to survey the situation in certain major educational fields are growing in number and offer an essential background for future investigations. Among these are:

a. Modern Foreign Language Study. This thorough-going investigation, in cooperation with the Canadian Committee on Foreign Languages, has published a number of researches and has others in preparation. As one of the recent publications, the following bulletin is mentioned:

PURIN, C. M. *The Training of Teachers of the Modern Foreign Languages.* Publications of the American and Canadian Committees on Modern Languages, Vol. 13. Macmillan Co., New York. 1929. 111 p.

Inquiries should be addressed to the Modern Foreign Language Study, 561 West 116th Street, New York City.

b. The United States Office of Education now has under way studies of the Land Grant Colleges, of the relation of the federal government to education and of secondary education. It has also been proposed that this office organize a survey of teacher training and school finance.

17. *Yearbooks of Various Organizations*—A rapidly growing number of educational organizations issue annual volumes which contain valuable material. Among these are:

a. The Departments of Superintendence, of Elementary School Principals, of Classroom Teachers, etc., of the National Education Association, 1201 Sixteenth St., Washington, D. C.

b. The National Society For the Study of Education. Public School Publishing Company, Bloomington, Illinois.

c. The National Society of College Teachers of Education. University of Chicago Press, Chicago, Ill.

d. The Educational Press Association. The Fifth Yearbook 1929, lists and classifies several hundred periodicals dealing primarily with education. 1201 Sixteenth St., Washington, D. C.

The foregoing sources of information are illustrative rather than complete. They are enough to support the statement that it is wise to discover what is already available before one seeks information in any field. Even though agencies such as the United States Office of Education or the National Education Association may not be able directly to supply information on an educational topic, they may be able to put the investigator in touch with an agency which can provide part or all of what is desired.

References on the Use of Questionnaires in Educational Research

From a much larger number of references which directly or indirectly bear upon the proper use of questionnaires in education, the following have been selected and briefly annotated. Many of those cited are worthy of a complete reading, particularly by those who deal with questionnaires either as investigators or respondents.

1. ALEXANDER, CARTER. *School Statistics and Publicity.* Silver, Burdett and Company, Boston, 1919. p. 59.

   In general discourages use of questionnaires for gathering statistics, because of factors of selection, and unreliability of answers.

2. BAWDEN, W. T. "Searching After the Truth." *Industrial Education Magazine,* 27: 172-3; December, 1925.

   Commends the questionnaire as an important and valuable method of investigation, when used by responsible agencies. Urges that persons inform themselves as far as possible regarding the subject of their inquiry before issuing a questionnaire.

3. BIXLER, HAROLD HENCH. *Check Lists for Educational Research.* Bureau of Publications, Teachers College, Columbia University, New York City. 1928. p. 40-5.

   Lists forty-six criteria which should govern the preparation and sending of questionnaires.

4. BORING, E. G. "When and How to Reply to a Questionary." *American Journal of Psychology* 37: 632-3, October, 1926.

   Quotes a "code of action" for use in replying to questionnaires, drawn up by a group of scientists in four of the larger psychological laboratories.

5. BUCKINGHAM, B. R. "The Questionnaire." *Journal of Educational Research* 14: 54-8; June, 1926.

   Urges that the investigator assure himself (1) that he cannot collect his data except by questionnaire, and (2) that the problem is not trivial. States that the recipients owe their assistance to the cause of education.

6. BURK, FREDERIC. "On a Certain Questionnaire." *School and Society* 15: 170-3; February 11, 1922.

   A protest against a particular questionnaire seeking data on degrees, teacher load, etc., and criticises the educational ideals which prompted the questionnaire.

7. BUTTERFIELD, E. W. "The Plenary Inspiration of the Dotted Line." *Educational Review* 69: 1-4; January, 1925.

   Criticises the questionnaire method in conducting the Classical Investigation.

8. BUTTERFIELD, E. W. "Professional Ethics and the Questionnaire." *School and Society* 11: 55-6; January 10, 1920.

   Outlines a suggested policy for replying to questionnaires.

9. CHARTERS, W. W. *Curriculum Construction.* Macmillan Co., New York. 1924. p. 133-6.

   Points out five major limitations of the questionnaire. Recommends preliminary trials of the form, the use of check questions, and the substitution of the oral interview whenever possible.

10. CRAWFORD, CLAUDE C. *The Technique of Research in Education.* University of Southern California, Los Angeles, California. 1928. Chapter X, "Questionnaire Technique," p. 177-87.

    Gives specific suggestions; emphasizes preliminary considerations; points out common faults, such as ambiguity, and leading questions.

11. DOUGLAS, H. R. "The Questionnaire—To Be or Not To Be." *School and Society* 15: 397-9; April 8, 1922.

    A defense of the use of questionnaires, when properly prepared, and used sparingly.

12. FALLON, JOHN F. "The Questionnaire in Educational Research." *Catholic Educational Review* 23: 539-45; November, 1926.

    Reviews the history of questionnaires; digests the literature concerning them. Defines questionnaire as: "a printed form presenting for answer a number of questions on a single topic, or a group of closely connected topics arranged under separate heads." States that when combined with other methods and used by skilled workers the questionnaire is of real service.

13. GAULT, R. H. "History of Questionnaire in Method of Research." *Pedagogical Seminary* 14: 366-83. September, 1907.

Mentions first written questionnaire known, issued by Statistical Society, of London, in 1838, on the history of strikes. Refers to work of G. Stanley Hall, 1880, in using questionnaires to study the mental content of children entering school.

14. GOOD, CARTER. *How to Do Research in Education.* Warwick and York, Inc., Baltimore. 1928. p. 133-40.

Summarizes published discussion of the questionnaire method in educational research; quotes Buckingham, Wylie, and National Committee on Research in Secondary Education.

15. HANKINSON, FRANK. "The Blight of the Questionnaire." *Educational Review.* 73: 102-8; February, 1927.

Discusses the ambiguity of questionnaires, endorses the policy of not answering them at all.

16. JONES, ARTHUR J., Chairman National Committee on Research in Secondary Education. *An Outline of Methods of Research with Suggestions for High School Principals and Teachers.* U. S. Department of the Interior, Bureau of Education. Bulletin, 1926, No. 24, Government Printing Office, Washington, D. C. 31 p.

Section V, "The Questionnaire," gives specific directions and suggestions for the use of the questionnaire method.

17. KELLEY, TRUMAN L. *Scientific Method—Its Function in Research in Education.* The Ohio State University Press, Columbus, Ohio, 1929. 195 p.

Lecture II, pages 33 to 83, is particularly pertinent.

18. KOOS, L. V. *The Questionnaire in Education.* Macmillan Co., New York. 1928. 178 p.

A comprehensive critique and manual on questionnaires. Reports analysis of a large sampling of published questionnaire investigations; evaluates the questionnaire as a method of investigation; and makes recommendations as to desirable practices in issuing questionnaires. Selected bibliography deals with questionnaire method, and cites representative studies which have employed this method of investigation.

19. LINDSAY, E. E. "Questionnaires and Follow-up Letters." *Pedagogical Seminary* 28: 303-7; September, 1921.

Reports experiments in which follow-up letters brought in a higher number of replies than the original inquiry.

20. MANN, HORACE. *Life and Works of Horace Mann.* Lee and Shepard, Boston, Massachusetts, 1891. Vol. III, p. 97-109, 157-67; Vol. IV, p. 151-71.

Quotes circular letters and replies received, issued in 1841, 1842, and 1847. One was sent to employers, on the influence of a public school education on the earnings of laborers; one was sent to teachers on the moral effects of good schools, and one to doctors on the proportion of disease due to ignorance of the laws of health.

21. MATHEWS, C. O. "The Effect of the Order of Printed Response Words on an Interest Questionnaire." *Journal of Educational Psychology* 128: 34, February, 1929.

Reports a tendency to give higher percent of affirmative replies to item printed on the extreme left position on the page.

22. "QUESTIONNAIRES AND QUESTIONNAIRES." *American School Board Journal* 71: 74; August, 1925.

Says that the average school board in a city of 25,000 population receives at least one questionnaire each day of the school year; emphasizes the part played by the graduate student in distributing questionnaires.

23. REEDER, WARD G. *How to Write a Thesis.* Public School Publishing Company, Bloomington, Illinois. 1925. p. 34-8.

Mentions ten essential considerations in designing and distributing questionnaires.

24. RUGG, HAROLD O. *Statistical Methods Applied to Education.* Houghton Mifflin Company, Boston. 1917. p. 40-55.

Contains section on the question-blank method of collecting educational data. Classifies questionnaires by three types, those seeking data (1) that can be answered from personal information, (2) that can be found in school records, (3) that represent analyses and judgments. Gives essential steps and guiding principles in use of questionnaire method.

25. SCHLUTER, W. C. *How to Do Research Work.* Prentice-Hall, Inc., New York. 1926. p. 84-7.

States that a proper use of questionnaires can be measured by the number of completed returns. Makes suggestions as to preparation of questionnaires.

26. SYMONDS, PERCIVAL M. *Measurement in Secondary Education.* Macmillan Co., New York. 1927. Chapter 16, "The Measurement of Conduct," p. 333.

Refers to work by Voelker, Cudy, Woodworth and Raubenheimer in using questionnaires to study character traits.

27. SYMONDS, PERCIVAL M. "Method of Investigation of Study Habits." *School and Society* 24: 145-52; July 31, 1926.

Lists twelve investigations of study habits by use of questionnaires; points out weaknesses of the method for this purpose.

28. TOOPS, HERBERT A. "Validating the Questionnaire Method." *Journal of Personnel Research* 2: 153-60; August-September, 1923.

Describes a study in which a 93 percent return to a questionnaire was obtained through the use of 5 follow-up letters.

29. TOOPS, HERBERT A. "Returns From Follow-up Letters to Questionnaires." *Journal of Applied Psychology* 10: 92-101; March, 1926.

Reports a 100 percent return on a question-

naire, through the use of 6 follow-up letters. Cumulative percent of response as follows: original questionnaire, 53%, follow-up letters, 65%, 83%, 88%, 97%, 99%, 100%. Observes tendency of recipients known to senders to reply more promptly than strangers. The essential conclusion of the study was not materially changed through the replies obtained by follow-up letters.

30. TROW, W. C. *Scientific Method in Education.* Houghton Mifflin Company, Boston, 1925.

Points out weaknesses of questionnaire method in child psychology.

31. WHIPPLE, GUY M. "The Improvement of Educational Research." *School and Society* 26: 249-59; August 27, 1927.

The writer sets forth some of the ways in which educational research falls short of being truly scientific in spirit and practice. States characteristics of a good questionnaire.

32. WHITNEY, F. P. "Questionnaire Craze." *Educational Review* 68: 139-40; October, 1924.

"The results of questionnaires as usually interpreted tend but to strengthen the hold of mediocrity." . . . Admits that we sometimes need to know what the other fellow is doing, but would discourage the attempt to establish norms and averages, through the use of questionnaire methods.

33. WYLIE, ANDREW T. "To What Extent May We Rely Upon the Answers to a School Questionnaire?" *Journal of Educational Method* 6: 252-7; February, 1927.

Refers to questionnaires to school children. Says answers may be relied upon, provided (1) that questions are plainly worded; (2) that there are a large number of interlocking questions, and (3) that the number of individuals questioned is large enough to balance the errors.

FORM I.—POSTAL CARD USED BY COOPERATING SCHOOL SYSTEMS IN REPORTING RECEIPT OF QUESTIONNAIRES.

A questionnaire has been received at this office from:

_____
(EXACT NAME OR TITLE)

_____
(SCHOOL OR STREET)

_____
(CITY AND STATE)

Subject of questionnaire: _____

Date of questionnaire: _____

This information is furnished to the Research Division of the National Education Association through the office of the Superintendent of Schools in: _____

FORM II.—FORM USED IN COLLECTING INFORMATION ON PERCENT OF RETURN ON QUESTIONNAIRE

THE NATIONAL EDUCATION ASSOCIATION
OF THE UNITED STATES
1201 SIXTEENTH STREET
WASHINGTON, D. C.

March 29, 1929.

Study of Questionnaires

You will recall that last year you sent us a copy of your questionnaire on

Will you now give us the information requested below, concerning the results of your questionnaire?

1. Have the replies to the above questionnaire been tabulated? Yes____ No____.

2. What uses have been made of the study resulting from the above questionnaire? (Please check below)

	Completed	In Preparation
a. Report on a local school problem.....	(____)	(____)
b. Report on problem of state school system...	(____)	(____)
c. Report for state or national organization .	(____)	(____)
d. Graduate thesis	(____)	(____)
e. College paper or report, not a thesis	(____)	(____)
f. Speech or lecture	(____)	(____)
g. Magazine article	(____)	(____)
h. Book	(____)	(____)
i. Advertising	(____)	(____)
j. Other use (please state) _____		
k. No use, as yet	(____)	(____)

3. In what mechanical form is the study resulting from the above questionnaire, at present? (Please check below)

a. Handwritten (____)	d. Printed (____)
b. Typewritten (____)	e. _____ (____)
c. Mimeographed (____)	

We should be glad to receive a copy of the study resulting from your questionnaire if available.

Please return one copy of this letter, keeping the other for your files. Your name is on our mailing list to receive a copy of the report on our study of questionnaires.

Very sincerely,

John K. Norton

John K. Norton
Director, Research Division